THE

MEDICAL AND SURGICAL REPORTER.

No. 1245] PHILADELPHIA, JANUARY 8, 1881. [Vol. XLIV.—No. 2.

ORIGINAL DEPARTMENT.

LECTURE.

ENDOCARDITIS.

BY ALONZO CLARK, M.D., LL.D.,

President and Professor of Pathology and Practical Medicine in the College of Physicians and Surgeons, New York.

(*Concluded from page* 7.)

Relating to endocarditis, the matter of vegetation, commonly so called in this country, is of interest. I told you that endocarditis is sometimes attended by little granulations growing out of the endocardium, firm at the base and soft at the top, not so large as a pin's head; and that these, though of very dimunitive size, are capable of being the nodus around which the fibrine of the blood will coagulate—that is not a good word—will be gathered, and become of visible form, and that we usually call vegetations. The German writers regard it as an accretion, and we are all correct in regard to its nature, that it is substantially the fibrine separated from the blood in the same way as it is separated when a thread is run through an artery or vein. Any cause that produces roughness, as an ulcer or any irregularity, is liable to be surrounded by this accretion of fibrine. Here you observe is an ulceration of the valve, and it has acted as granules in endocarditis may. Here, again, you have an accretion, probably from mere roughness, without the granules; mere roughness from inflammatory exudation. I told you, the other day, that while we rather rarely see a membranous exudation in endocarditis upon the body of the heart, on its inner surface that can be easily accounted for, under the supposition that the exudation has thickened and fallen off by the continual washing of that surface by the current of blood that passes through. In this specimen you see some deposit of fibrine on the three aortic curtains. And here is that rather interesting—I don't know but I ought to say ornamental—formation of granules, forming a semicircle on the free portions of the valves. This, however, illustrates atheroma, which subject I wish to reach before the end of the hour, and I will retain it for the present.

One of the dangers, I told you, of endocarditis is the occurrence of these deposits and the washing of them away into the general circulation, and, finally, the lodgment of a mass of this kind in an artery, through which it cannot pass on account of its smallness. Endocarditis of itself is almost never fatal. It accompanies pericarditis in a great majority of the cases of pericarditis, and for the most part, when so associated, depends upon the same cause. Yet endocarditis can occur even in the acute form, and frequently it does occur in the chronic form, without any rheumatism preceding it, without any of the diseases that are apt to be associated with pericarditis, as Bright's disease, scarlet fever, the purulent inflammation of the body, septicæmia. I have sometimes, by exclusion, been able to say that a certain person has endocarditis. The only mode of arriving at such an opinion is by finding a certain amount of febrile action, a little elevation of temperature, a little increased frequency of the breathing, and a short, irritable, quickened beat of the heart. That short, irritable beat will produce in the ear the same sound that I referred to in describing pericarditis; when it was first noticed it was regarded as diagnostic, but it has no such value. It is just that metallic ring which

you get by applying the palm of the hand to the ear to exclude the air and then striking on the back of it. It is the irritable beat of the heart against the inner wall of the chest that produces it. And then, you should be able to exclude everything that would be likely to produce a febrile movement, and perhaps you may, in half the cases, find that the diagnosis of endocarditis is verified by after indications. During the progress of endocarditis there are frequently no indications of its presence except pericarditis. You assume, usually, at once, when you diagnose acute pericarditis, that there is endocarditis, but of itself it does not give distinctive signs except in a few cases. When, for example, you have, say rheumatism or Bright's disease, and have listened to the heart on a certain day and found nothing unnatural, you find the illness is increased a little, the heart beating more frequently, the respiration short and frequent, you listen again and you get an endocardial murmur. It is probably soft. It may be at the aortic opening; it may be at the mitral. Supposing it to be in the interval of the heart's action, during the period of repose, it is produced by one of two things: An œdematous valve, or these little granulations I have been describing to you forming upon it, on the surface that the blood has to pass over. In a few instances you may have that aid to diagnosis, but in the majority you do not. Then, again, there may be an œdematous swelling of the aortic valve; the two folds that constitute the valve are swelled out and partly fill the passage through which the blood should flow. A soft murmur is sometimes produced in that case, but as it is only sometimes it cannot be relied on as a diagnostic mark, except when you have listened a few days before and found no murmur, and now, with indications that there may be endocarditis, you do find one, then it is significant; but, in practice, neither the rational nor the physical signs of endocarditis are sufficiently marked to enable anybody to make a certain diagnosis without one of these facts that I have just now referred to. In general, endocarditis comes during its acute period without producing any symptom, only that short irritable beat of the heart and the increase in the frequency of the respiration. The rational diagnosis is entirely vague. Then the physical diagnosis is very uncertain. But the after diagnosis—you may lock the door after the horse is stolen—the after diagnosis is sure, or next to sure. The deposit in these valves, if it is anything more than œdema, is pretty sure to produce changes in the structure of the valve.. In the first place, they must be thickened, for there is new matter deposited in their structure; in the second place, this new matter undergoes a sort of organization. It behaves like a false membrane, and shortens, and the valve is shortened, so that when it attempts to fill the opening that it is appointed to fill it cannot. There is a hole left in the middle. Then, as I told you, the valve sometimes grows hard and stiff, like leather, and can do very little in preventing the return of blood, and a good deal in preventing the outflow of blood, being obstructive. Well, when these changes occur, even in a moderate degree, you will get a murmur. It will very likely be of a harsh kind. It is not certain to be that at first. It will grow to be a harsh murmur, in all probability, in a few months. The period of time, however, when you can recognize these murmurs will be from three weeks to three months after the disease has passed, after the time when your diagnosis would be of any practical value. But the thing stands so. You have to take it as it is. You can pretty safely say, after two or three months, this patient has had endocarditis. But as it is so frequently associated with pericarditis, and pericarditis is pretty easy of recognition, and as, further, the treatment of the one condition is the same as the treatment of the other when they are associated, this lack of power of diagnosis is not so disastrous. It is only important when the disease occurs alone; and that it does occur alone we have pretty good evidence in the great number of persons that we see with valvular disease who have never had rheumatism, never had Bright's disease, never had any of the affections that are so apt to precede pericarditis and endocarditis. They have enjoyed, as they believe, good health, and cannot point back to any time when they have had symptoms that would lead us to think they had heart disease; yet the valves have become thickened, and are defective, just as they are in the acute form of the disease. There is then, undoubtedly, a chronic endocarditis, that only shows itself by the physical changes that are produced, or rather by the changes that are produced in the sounds of the heart. The relation of these changes to the structure of the heart itself will be for consideration hereafter. You observe, then, you have not a very certain diagnosis. Only when you have listened and heard no endocardial murmur, and then, a few days after, with symptoms of illness, do find one; that is about your only guide. And then you have to be certain that it is endocardial and not exocardial. The statement I made the other day, with reference to the breathing, will aid you in making the diagnosis.

With regard to the treatment, if it occur in connection with rheumatism, as it often does, the treatment for rheumatism is the best treatment for endocarditis, as it is for pericarditis. If you can recognize the disease as occurring alone, then I would advise the abstraction of a little blood; unload the vessels; relieve the valves of a part of their work—not, however, more than eight or ten ounces. You will be tempted to apply counter irritation over the pericardial region. Well, that is orthodox, but it is useless. There is no way of affecting, by counter irritation, the circulation in the endocardium. It is entirely dependent upon the coronary arteries of the heart, and these are given off at a point that you cannot reach to influence the amount of blood circulating in them by any outside application. But if it will satisfy you better, if your conscience tells you the patient ought to have a blister, put on one—it will prevent your listening so satisfactorily; at the same time settle it with your conscience. It will do no harm, and I don't believe it will do any good. In quieting the heart's irritation a moderate dose of opium is of value. The more quietly the heart can do its work, the fewer the embarrassments, the less the mischief that will follow. The strain upon the valves, whenever they are brought into exercise, is considerable—that against the mitral when the heart is contracted; that against the aortic valves after the heart is contracted, while the artery is contracted. So that if the heart does its work in the quietest possible way the mischief to these valves will be the least that you can expect. Then you have really only two things that are of much consequence, and those two are the abstraction of blood and quieting the heart with opium or some other anæsthetic.

There is another form of endocarditis which has been lately described, or within a few years at any rate, that you will not be able to recognize at all. Still, it is well enough that you should know, and important that you should know such a disease does exist. It has been called ulcerative endocarditis. It seems to be a sort of diphtheritic inflammation. A diphtheritic inflammation of a mucous membrane, of the trachea, for example, or of the fauces, differs from a common croup or other membranous inflammatory action in the fact that the deposition that is the result of the inflammatory action is to a certain extent incorporated with the membrane; so to speak, infiltrated into it. A croupous membrane can form and can exfoliate and leave the membrane entirely. A diphtheritic membrane can exfoliate, but it is not likely to leave the membrane perfectly sound and normal. Sometimes it does, but it is the tendency of diphtheritic inflammation to deposit the products of inflammatory action in the tissue. Well, that seems to occur in the endocardium, and it may occur in any part of the endocardium, not alone in the valve. It does not occur so frequently in the valves as on the body of the endocardium. I should be disposed to regard it as a sort of diphtheritic inflammation. The new deposit looks like a membranous patch. It is in patches. It does not extend over the whole surface; and when you examine it post-mortem you will think you can wipe it off with your scalpel, or with a rag, but when you attempt to do it it holds fast, and if you with your scalpel attempt to remove it you remove the membrane with it. This proves to be ulcerative in its results. It is not ulcerative in the beginning. It is simply a deposit of diphtheritic membrane on and in the endocardium. But it has not the power to perpetuate its life, if it has any, and in a little while it will begin to break down—to break down into fine granular matter, and perhaps some oily products and as it does this it destroys the membrane in which it is deposited. The endocardium, then, is susceptible of destruction in limited portions of its extent, in this way. As the inflammatory exudation breaks up and disappears, it carries with it a portion of the endocardium. If that occurs upon the valves, as it sometimes does, it is very likely to weaken that half of the valve, that layer or fold of the valve, so much that aneurism may take place in this valve. That is, the remaining membrane, the membrane that forms the other half of the valve, will not bear the strain that is brought upon it by the regular course of the circulation, and it pouches; it makes a bag, or, in other words, an aneurism, and it has been known to rupture under these circumstances. Then, again, the ulcerative process may not be confined to the endocardium if it occurs upon the body of the heart. It may penetrate a little distance into the muscular layers and weaken them, and hence also aneurism of the heart has occurred, or rupture of the heart. This, as I have told you, is a form of inflammation, or a product of inflammation that you cannot recognize during life. It produces no physical signs. It produces no peculiar rational signs. It may be found hereafter that it is confined to those who have some diphtheria in other parts of the body. And at this point I may as well say to you that when diphtheria made its appearance in New York for the first time as an affection of the throat and air passages, I was interested to

know what sort of thing it was, and I early procured specimens of the membrane for microscopical examination. I found that it was made up of granules in great degree; granules that were held together by a pretty firm matrix, and that the matrix was transparent; that on the outside of the membrane, that is on the side exposed to the air, there were the common microscopic vegetations, two or three forms of them. And that in this respect the diphtheritic membranes differed from the true croupous membranes, being constituted, in very considerable part. of granules, and in part, also, of ex traneous vegetations. At a later day it was claimed that these granules were a particular vegetation of themselves, and they have received a name, micrococci—I do not know that it was a *cock-eye* that saw them!—Micrococcus means a little berry. These bodies are rounded, and in these membranes are packed together pretty closely. As you read the journals and new books you see a good deal of micrococcus. It seems to have found its way into parts of the body that have been supposed before to be sealed to any outside thing. Well, they tell us that ul cerative endocarditis is a consequence of the deposit of micrococci. They are little bodies, not more than the one twenty-five thousandth of an inch in diameter. They are very minute, therefore, and it is claimed that this deposition in the endocardium is made up in very considerable degree of these little microscopic bodies. That would only bring it into closer affinity with diphtheria if it prove to be true. And even if it is true. I do not believe that the micrococci are micrococci at all. I think it is a particular form of deposit of lymph in granular shape, and certainly there is no proof that they are vegetations. It is a mere statement of opinion by somebody, and that opinion has, like a wave, spread pretty far. I am willing to admit that the subject is under judgment, is under arbitration, and it may prove that these bodies are little vegetations, and that they are proliferated by scission, as it is called; that is, divided, and each one taking the shape of the parent—a pretty rapid way of multiplying. If you have one in the beginning, and it divides and makes of itself two, and the two divide and make of themselves four, and the four divide and make of themselves eight, and this division goes on pretty rapidly, you will soon get high numbers. You understand me! I do not deny the possibility of this being a vegetation, but the probability of its being a vegetation is very doubtful in my mind. Still, that sort of thing does occur in the endocardium; a something that has a granular form is deposited, and afterward leads to ulceration.

It is necessary to refer to other causes of valvular diseases. The most common is the deposit of that substance that looks like mucine, that I have described to you. Then its organization and contraction, producing what I have already denominated the shortening, thickening and stiffening of the valve. Those same results can be obtained when other agents are at work. One of the things that operates most actively after inflammation is atheroma. Atheroma originally meant an abscess, but it has come to mean, in these later years, a particular deposit that is confined almost entirely to the heart and arteries, much more common in the arteries than in the heart itself, but in the valves not infrequently met with. This atheroma you can form an idea of by the specimens which I can exhibit to you. Here, for example, is the beginning of the aorta, and you observe it is pretty large, and it looks, to a certain extent, warty. It looks as if it had been flattened, and on one particular point there is a little deposit, and a transformation of a deposit into calcareous matter. Well, that is atheroma. When you first find it in the dead body it is almost always of a yellow color, or a faint yellow color. Here it is white. It has been bleached by alcohol, in which the specimen has been kept. If you handle the specimen you will find that at different parts it is of uneven thickness. There are little warty, flattened eminences upon the whole circumference of it. and here at the edge you can get an idea of its thickness. Here is another artery that is, to a certain extent, warty, exhibiting the same thing, lacking the yellow color which belongs to it when it is first seen. You observe it runs up the artery a considerable distance, that is the aorta. You observe, too, that it has narrowed the openings of the three arteries that are given off from the aorta. Here is an interesting specimen of an atheromatous deposit in a valve and not in the artery, or if any, very little. The valve has undergone one of the changes that I will describe to you directly, and it has ulcerated a hole through the valve. Not only that, but it seems to have been deposited on the substance of the heart, probably not in the substance, and an opening has been made at the same time from one ventricle to the other. A broom straw has been passed through the whole, from one ventricle to the other, and you will observe what an ulcerated and damaged condition this valve is in. Here are a number of other specimens which you will examine.

Now, then, the first question that comes is, what

is this? This atheromatous matter? Well, it is an effusion on the outside of the inner lining of the artery; the intima, as it is the fashion to call it now. It lies outside of the lining membrane of the artery, that is measuring from the centre of the artery and calling it out in every direction. It is to a certain extent infiltrated into the fibrous tissue of the artery, but it is much more commonly found just between the lining membrane of the artery and the fibrinous layer, called media in these later days. Between the intima and the media, then, is to be found this deposit. And it is constituted sometimes of a material very much resembling that that I have described to you as thickening the valves in endocarditis, a sort of mucous matter, and that is thick set with cells that do not grow, do not develop themselves according to the rules of cell growth in other parts of the body, but become attached to each other on almost any point where they may touch, and thus form a kind of tissue. Then that is pretty fully infiltrated with little globules of oil, and occasionally a few fibres are formed by the coalescence of these cells, but they possess very little power of permanent life. And the result of this is a pretty early change in their constitution. The cells disintegrate and oily globules seem to take their place. The fibres gradually disappear, being broken down into granules, and soon the means of organization have passed. It is very soon, that is in a few months, or a year or two at most. The result of the breaking down of the structure is a softening, and you can sometimes find these little deposits of soft material, looking exactly like pus, except a little yellow. Put it under your microscope and you will find that there is no pus globule in it, not one. The result of this is, sometimes, to leave an ulcer on the artery, or, as in the specimen you are examining, in the valves, and more frequently at the base of the valves than at any other part of them. A weakening of the structure is therefore produced, without softening. This atheromatous matter has no strength, and it has no elasticity. It cannot replace in function, as it replaces in position, the fibrous tissue of the artery. The wall grows weak by the deposit of this matter in it, therefore. and you may start, with regard to aneurism, with this assertion, that aneurisms in the human body do not occur except by violence or by the weakening of the coats of the artery through an atheromatous deposit.

An aneurism in any of the large trunks of the circulatory system will not occur without atheroma; it must be weakened before it will yield, and weakening is always effected by an atheroma of the artery. You may search for twenty years among aneurisms, and you will not find a single one that has occurred in a sound artery. Even those minute ones that have been lately described in the brain circulation, have for their base atheromatous weakening of the arteries of the brain. Well, this is a pretty grave matter, then, for it is the parent of aneurism; it also produces the weakening that precedes what is called dissecting aneurism. The artery may break partly in two, the inner layers may be broken, and the blood may find its way between the layers of the artery for a very considerable distance. This, however, I believe only occurs in the large arteries, the thoracic and the abdominal. I do not know but it occurs in the iliac sometimes. That also, I say, has its origin in the weakening of the arterial coats by this atheromatous deposit. Well, this is one of the courses that an atheroma pursues when it is once deposited in the vessels. Another is interesting perhaps, not to say important, in its bearing. The atheromatous matter is broken down very much in the same way as I have described to you, but more gradually, and the fat seems to be taken up by the circulatory vessels, and deposited in the place of the atheromatous matter is bony structure, bony scales. Such a specimen as that I will try to show you the next time we come together, in which the whole artery has been converted into scales, a multiplication of scales, some of which have a real bony structure—have the lacunæ and the canaliculi; and some of which are mere calcareous accretions, without anything which distinguishes bone. These render the artery inelastic, and so interfere with the circulation. As I have already told you, the heart sends the blood into the artery and dilates it, and the artery, by its natural contractile power, propagates or continues the action produced by the heart, carrying the blood forward in the circulation. But in an artery that has been deformed in this way the elasticity is gone. Hence, in such cases it is not uncommon that hypertrophy occurs. There is another evil that may come of these bony scales; they are sharp at the edge; they are thin. I say sharp; they have almost a cutting edge; and the gradual action of the artery, or so much as is left of its capability, may cut through the inner lining and let one of the sharp edges stand out like the edge of a nail, or the end of a nail rather, and on this may form the accretions of fibrine, the coagulations of fibrine, or vegetations, and these, in their turn may wash off and make emboli. In a few instances, when the process is softening, and it has occurred between the valves, the soft mat-

ter may remain between the valves some time. I had a specimen, I do not know but I have it now, but I have not seen it for two or three years, in which the mitral valve was the seat of atheromatous deposit, which softened and made a material looking like pus, and remained for some time; I do not know how long. It was found after death. It at first merely separated the two folds of the mitral valve, and formed a kind of abscess. The quantity of softened material it contained was perhaps half a teaspoonful; it had not, as in the specimen you are examining, destroyed the lining membrane, or at least the folds of the valve.

There is one other point to be referred to in this connection. You hear a good deal, or something, at any rate, of bony deposits in the heart, and particularly in the valves. They almost always result from a changed atheroma. The atheromatous matter is deposited in the valves, and there is, perhaps, some thickening, too, from inflammation, produced by the irritation of this substance, and at length absorption of the material takes place and calcareous matter is deposited instead. I shall be able to show you, probably, two or three hearts, perhaps some in which you can feel the bony roughness in the valves. Occasionally this bony deposit occurs in the heart itself.

I was consulted in regard to a physician who was pretty well advanced in life. It was supposed that he had heart disease. His heart was beating irregularly, sometimes palpitating, sometimes beating very feebly, and he was subject to fainting spells. On examining his heart I found no enlargement of it; I found nothing to indicate valvular disease, and I said, from the manner in which it behaved, there must be some disease of it, but I cannot tell what. In a month or two this gentleman died, and a post-mortem examination was made, and a mass of calcareous matter was found in the body of the heart, beginning at the base and extending downward an inch or more, and, to a certain extent, thickening the particular part of the base of the heart in which it was deposited. It had crippled the heart in its muscular contractions and the heart resented it as well as it could, but it could not tell the story to the outsider. It was plain that the heart was not working properly, but why, nobody could guess, because there are other forms of diseases that behave in the same way, particularly the fatty degeneration, Quain's degeneration of the heart. You can frequently see that there is something wrong with the heart, but you cannot tell what it is. This atheromatous matter is not usually deposited in the muscular fibres of the heart, and whether it was the result of a previous deposit of this material in the heart, or whether it was a bony deposit or a calcareous deposit that was in connection with atheroma, I cannot tell. The importance of atheroma, then, will impress itself upon your minds mainly with reference to the deposit in the valves of the heart and the formation of calcareous or bony concretions in the valves, or, perhaps, in the substance of the organ. There is no way of distinguishing, before death, these several forms of diseased valves. You cannot tell, as you hear a certain murmur, whether it is produced by inflammation of the pericardium or by an atheromatous deposit or atheromatous deposits that have passed into calcareous or osseous formation. To determine this you will have to wait until after death, and as almost all, and probably all, these vegetations of the valves are remediless, are not curable, it is of no very practical importance.

A remark or two more in regard to endocarditis, before we go to diseases of the valves, to consider them in detail. Endocarditis, like pericarditis, is very apt to act, to a certain degree, upon the heart itself. An œdematous effusion may take place in the fibres of the heart, exactly as you see an œdematous effusion occurring in the leg when the knee is the seat of inflammation, or in the arm when the muscles of the shoulder are involved in inflammatory disease, as rheumatism. For example, in February of last year I woke one morning with a pain and stiffness in the left shoulder. I found that I could not get my coat on without assistance. The shirt was big enough to go almost anywhere, but the coat was made to fit a little more closely, and I could not get into it, so I got assistance to put on my coat and then went about my business. But the arm grew worse and worse, and I recognized, after a few hours, that I had rheumatism in the deltoid muscle, and directly my arm and hand began to swell and my hand looked very fat. As soon as I saw it swelling I took off my rings, for fear they would be fastened upon the finger and could not be gotten off. The swelling continued until, after a pretty free use of the bicarbonate of soda, the inflammation was subdued. Then the swelling all went away. So in the heart, the parts neighboring to those that are the seat of inflammation may become the seat of œdematous effusion, and thus weaken the heart—the same thing that I stated to you when speaking of endocarditis. Pericarditis and endocarditis commonly occur together, and, of course, there will be all the more of this œdema of the heart.

COMMUNICATIONS.

FIXED DRESSINGS AND THE METHODS OF APPLYING THEM.

BY GEO. F. SOUWERS, M.D.,
Of Philadelphia.

While fixed dressings have, for the past few years, occupied the attention of the profession to a greater or less extent, there yet seem to be a number of physicians who are not thoroughly conversant with the manner of application of the different forms of this most useful adjunct to surgery, and it is to this class, represented largely by those practicing at a distance from the great medical centres, that I believe a paper of this nature would be of value.

While under the old regime of fracture dressings, of the lower extremities more especially, patients were compelled to maintain a recumbent position for four, six, eight or ten weeks, often exercising upon the system, especially in old persons, a very deleterious influence, under the new dispensation they may frequently be allowed to go about on crutches at the end of nine or ten days, or, at furthest, two weeks; the limb being encased in a light, clean, supporting case or splint, that can readily be removed and replaced at pleasure. In this box, for such it practically is, formed by a fixed dressing, the limb rests securely, and beyond any displacing power of the patient short of cutting or crushing, and, at the same time, an equable pressure is maintained. These dressings have been brought into prominence, not so much by their use in fractures as by their applicability in the various forms of Pott's disease of the spine. Though there are many different kinds of material employed in the making of these dressings, the principle involved is the same in all, to wit: a dressing that shall be easy of application, that shall harden rapidly and yet not easily chip or loosen, and that shall afford a firm, equable support to the injured limb.

The first thing to be considered in the making of these dressings is the bandage, and the degree of tension exerted in its application; for ordinary use the simple roller bandage, about two and a half to three inches in width, is employed; if a muslin or linen bandage cannot be obtained, there are a vast number of materials that serve the purpose equally well; strips from an old felt hat may even be employed in an emergency, toweling of the ordinary common crash, or newspapers even, may be employed, the idea involved being to use anything that will absorb and maintain within its meshes or pores the solution employed for the application of the plaster-of-Paris dressing; however, it is better to use a coarse crinoline or mosquito netting, experience having shown this to make the best and most convenient bandage; the employment of these materials is not, however, an absolute necessity.

In the application of all fixed dressings care must be taken that they be not applied too tightly to the limb; there must be an allowance made for shrinkage in the moist bandages, this shrinkage being considerably more than would at first seem possible; in fact, in some forms of dressing, as in the silicate, for instance, the roller should be applied quite loosely, even bagging a very little. As to the time of application of these dressings, so long as any swelling is present, the fragments of the bone not in correct apposition, or, at least, in as correct apposition as they are likely to be, or if there is a spasmodic, irritable condition of the muscles, there should be no resort to their employment; in from a week to ten days, however, as a general rule, their application may be safely proceeded with, this being the rule commonly followed at the Pennsylvania Hospital, in the service of Dr. R. J. Levis, to whom I am indebted for a number of suggestions in the preparation of this paper. Further, care should be taken to see that nature is making an effort at reunion of the fragments, before applying a fixed dressing. As to which are the best and most reliable dressings every surgeon has his own opinion, though as between some there can be but very little choice; true, the matter of expense enters largely into the consideration of which bandage shall be employed, but as in a great many other things, it frequently occurs that the more expensive article is in the end cheaper than that of low cost. At different seasons of the year, too, different bandages present different degrees of availability; thus, that which in the winter time makes a very elegant and cleanly dressing, may be a very unpleasant if not an uncleanly thing to use in summer; thus, while adhesive strips make a nice winter dressing they are somewhat objectionable as a summer application.

In selecting a muslin to be employed in the manufacture of a dressing it is not desirable to secure one of a very fine and close texture, a rather open mesh being generally more desirable; thus crinoline, mull, crash toweling, and goods of a similar texture make perhaps the most satisfactory bandages; further, an unbleached is preferable to a bleached muslin; it does not appear to be as stiff, and consequently can be

more readily wrapped or moulded into position. An unglazed paper, or bookbinder's muslin, if obtainable, forms a very nice material for these dressings. It is not a bad plan to follow, to wash or soak, and then dry the material, before using it as a bandage, the reasons for which are evident without being discussed.

The simplest forms of fixed dressings may be made from articles which are always to be found in the kitchen: thus, for an emergency application, that is to last but for a short time, a paste of flour and water may be employed, as follows: A roller or crinoline bandage having been passed around the limb, the mixture of flour and water is rubbed into the meshes of the cloth; over this, while still wet, another layer of bandage is placed, and into this also the mixture is rubbed; one layer after another is thus superimposed, until the necessary strength and thickness (the amount of which each must judge for himself, according to the case in hand, though four layers are generally sufficient) are obtained, a plain unbleached roller bandage is placed over all, and the dressing is complete. A nicer and more reliable way of making this bandage, and one which dries most rapidly, is to add to the flour and water the white of one or more eggs, and enough gum arabic to give the mass a sticky sensation when pressed between the fingers; prepared in this manner the bandage presents a more elegant, cleanly, and shining appearance. Instead of the gum arabic, glue may be employed, or, in fact, a dressing of glue applied to an ordinary bandage will make a very simple and at the same time very efficient and strong dressing.

Next, perhaps, in order of simplicity, is what may be styled the newspaper dressing; this consists simply in the use of newspapers, where bandages cannot readily be obtained; whichever application or dressing is to be employed is rubbed into the paper in the same manner as into the roller bandages. When possible, tissue or some similar paper makes a lighter, less bulky, and more readily applied substitute for newspapers.

There is a form of dressing which, while simple, is very efficient, and I am tempted to add unusually economical, in that it uses up what would otherwise go to waste. I refer to the felt dressing; an old felt hat cut into strips about two inches to three inches in breadth, and these allowed to soak for some minutes in *boiling* hot water, can be thus made to do duty after having served its day as a head covering. These strips, when thoroughly saturated, should be squeezed as dry as possible, and then moulded to the limb or part to be splinted; having been moulded into position a roller is passed over it, and the injured parts rest in a light, strong, and not readily displaced box. Binder's board thus treated makes also a most desirable dressing; both of these materials are particularly adapted to injuries about the lower jaw, as they accommodate themselves admirably to the angles and curves of the bone; of course the same remarks will apply to any species of felt cloth or paper.

The pasteboard dressing may be modified and strengthened by rubbing boiled starch into it, the consistence of the starch being about that used by wash-women. A nicer and more reliable way (suggested by a friend) of applying the starch and pasteboard dressing is as follows:—The limb is surrounded by a layer of cotton batting, the protuberances, etc., being protected by rings of cotton; ordinary binder's board, $\frac{1}{16}$ to $\frac{1}{8}$ of an inch in thickness, cut as nearly as possible to fit the limb, and soaked first in boiling hot water, and then in starch, is then applied; over all, a bandage soaked in thick starch is placed, and over this a plain roller; under the use of hot sand bags this bandage dries in about twenty-four hours. Seutin, of Brussels, I believe, first called attention to the starch bandage, about 1834, and he sets it down as a rule, that about thirty to forty hours are consumed in drying, so that the two extremes may be said to be twenty-four and forty hours. This bandage may be readily cut open to examine the injured parts; if placed on while any swelling is present it should be removed when sufficient time has elapsed for a full subsidence of swelling, and a strip cut off of the front of the dressing; it is a better rule, however, never, if possible, to have occasion to cut a fixed dressing on account of subsidence of swelling; this process should have taken place before the application of a permanent dressing, as otherwise very serious trouble might arise, due to the exertion of an undue amount of pressure, etc.

Paraffine, or even tallow candles, may, in an emergency, serve a good purpose; being melted they are poured over the limb, which is surrounded by a roller, the grease being rubbed into the meshes; as it hardens it makes a strong case in which the limb rests easily. Melted wax may also be employed in this manner. In our Southern States, especially in cool weather, and in sections where more elegant preparations are not easily obtainable, ordinary tar is employed in the manufacture of fixed dressings; though, of course, this can hardly be said to make a very nice form of dressing, still, it is an exemplification of the fact that necessity is the mother of

invention. Almost any gummy or starchy substance may be made to do duty in these dressings; thus tragacanth, in the form of a thick paste, is very frequently employed, this being, like starch, gum arabic, etc., simply rubbed into the meshes of the bandage. Ordinary shellac may be frequently and advantageously employed; this is boiled and the bandages dipped into the solution, and then applied; it makes a very clean and nice dressing; in fact, I see no reason why an ordinary strong shellac varnish, applied in the same manner as the silicate dressing, should not be employed, the alcohol being rapidly volatilized. Splints of gutta-percha may be formed by plunging this substance into boiling hot water, in which it very rapidly softens, and then moulding it to conform to the limb, a bandage being also passed around it.

In cold weather superimposed layers of adhesive strips make a very nice, and at the same time inexpensive and an easily removable dressing. The strips should overlap each other for one-half their width. This form of dressing is peculiarly applicable in fractures of the ribs, where it serves to limit the amount of chest expansion. In summer, however, the strips do not maintain their positions well, and they are not so cleanly as many other forms of dressings. In the application of this dressing care should always be taken that the parts are well shaved before the application of the strips, as if this precaution is neglected there is apt to be considerable trouble and pain to the patient, experienced in their removal.

I come now to consider the more expensive and the more difficult form of application of these dressings. In the order of merit and ease of application, silicate of sodium, or soluble glass, as it is sometimes termed, takes precedence; this preparation is obtainable at all drug stores, and makes a very available form of dressing, as it can, in a manner which I shall describe, be readily removed from the patient, for the purposes of examination. The best method of applying this dressing is to envelop the part in a crinoline bandage about two and a half to three inches in width, the solution of the sodium silicate being applied between every layer of the bandage by means either of a brush or the hands; over all a coating of the solution is painted or rubbed; this form of dressing takes about four hours to harden, and it may at any time be removed by slitting it up in front by means of a pair of shears or heavy scissors. If desirable to replace the bandage it is simply sprung back over the limb and bandaged into position. In the application of this, and, in fact, all permanent dressings, care must be taken that too much pressure is not exerted on salient points, this being avoided by guarding them by means of a layer of cotton, or a piece of soft lint folded.

There is another form of permanent dressing, known as the "zinc and glue dressing;" this makes a very strong, white and rapidly hardening dressing. It is made in the proportion of one part of zinc oxide to either four or six parts of glue, say one-sixth of a pound of oxide of zinc to one pound of glue, with sufficient water to make a thick solution; care must be taken not to have the dressing brittle, but by using these proportions there is not much danger of this accident. This solution is applied, while still warm, by means of a brush, and may, if desired, be finished off with a roller, but this is hardly advisable or necessary, as the elegance of the dressing does not make it in any way objectionable to the sight. When a brush is not conveniently to be had, the hands may be employed to rub in this dressing; and at this point a little hint that may be of value occurs to me; it is always advisable, in applying these fixed dressings, where the hands are employed in rubbing, to oil the hands, as they can thus be more readily and thoroughly cleansed, the material not adhering so closely to them.

The next form of dressing to be considered is that which is perhaps more known and more often applied than any other. I refer to the one which Dr. Sayre, of New York, has made so much use of in treating Pott's Disease of the Spine—the plaster-of-Paris. While this form of bandage presents many advantages, yet there are some objections to it; it is more or less liable to chip and leave in the track of the patient a series of plaster fragments, this being more especially the case when the dressing has been put on with a lavish hand; further, if a number of bandages are prepared at once they are apt to be useless when wanted, unless they have been kept in a dry place. The method of making and applying this bandage is as follows: Into the meshes of a coarse crinoline, or crash, dry plaster is rubbed; or another method, which consists in the employment of an apparatus specially constructed with a view to the preparation of these plaster rollers (if they may be so called), may be used. This apparatus consists of a box filled with dry plaster, through which the crinoline, in strips of from two to four inches in width, and six yards in length, is drawn and wound on a small iron bar, which is turned by means of a crank-handle; the bandages prepared by rubbing the plaster into

the meshes of the cloth are, however, fully equal to those made on the machine. The crinoline thus prepared should be made into an ordinary roller, and if not intended for immediate use should be enclosed in a tin, or other air and water-tight box, and placed in a cool, dry place. A little salt added to the plaster makes it set more rapidly. When needed for use all that it is necessary to do is to dip the roller into cold water, for about three or four minutes, or until air bubbles cease to rise, the plaster thus absorbing enough water to make it set nicely. The part to which the bandage is to be applied should be cleansed by means of tepid water, and lightly but thoroughly dried; this precaution should, in fact, be exercised before the application of any permanent dressing, no matter of what kind. Before commencing the application of the bandage the limb should be surrounded by a layer of lint stitched into place, and having attached to it (in the case of dressings of the lower limbs) tapes along the upper aspect. These tapes may also be employed in many of the other dressings, and be a very convenient arrangement for the purpose of suspending the limb when necessary, and allowing it to swing. If lint be not readily obtainable, a piece of blanket will answer equally as well; some prefer passing the suspending bands around the limb; if this is done, leather bands about half an inch wide are far preferable to muslin or linen, as the leather does not work into strings that exercise more or less of a cutting influence.* The crinoline roller is then applied in the manner of any ordinary bandage, plaster of the consistence of a thick paste being rubbed between each layer of the bandage. A sufficient amount of roller having been wound around the limb, the dressing is finished by rubbing wet plaster over all till a perfectly symmetrical appearance is presented; if necessary, a little dry plaster may be dusted over the final coat of the dressing; this dressing hardens very rapidly, say in about thirty minutes. Three or four bandages of the lengths given above are generally sufficient to afford the requisite support. If it is desirable to remove the dressing at any time, it can readily be done by slitting it up in front by means of a shears, and the same bandage can again be placed on the limb and confined in position by a roller. In from two to four hours the bandage is ready to be thus cut open when desired. If too hard or thick to cut, by soaking the plaster in *hot water* for fifteen minutes the object may be easily accomplished. It may at times be desirable to employ what might be styled a partial splint of this material, and this may be done as follows (this form being used when it is desirable to observe frequently an ulcerated or lacerated part): A piece of blanket long enough to reach above and below the parts to be examined, and fifteen inches in width, should be dipped into a plaster solution of about the consistence of cream; this is then folded so as to be two to three inches in width and applied along the part not to be observed, being confined in position by circular turns of the bandage above and below.* Where subject to discharges from wounds and to water, etc., oiled silk forms a very nice protection to the bandage. This dressing has gained a high reputation, from its extended and successful employment in the various diseases of the vertebræ, from the fact that it supplies the necessary amount of support which the vertebræ in Pott's Disease are unable to afford.

In applying the plaster dressing to the trunk, a number of modifications are necessary, or can be made: thus, the crests of the iliac should be provided for by fenestræ in the bandage, these being cut with a knife after the dressing has hardened, say in about three hours; in like manner, any other prominences may be provided for; fenestræ, if necessary, may also be made for the mammæ in the female. Many surgeons, for the sake of ventilation, and to decrease the weight of the apparatus, perforate this plaster box, as it is, at different points, the openings varying from the size of a cent to that of a nickel, or two-cent piece; where an unusual amount of support or force is necessary, strips of whalebone or flat steel springs may be introduced between the different layers of the bandage as it is applied to the body. When employed for the treatment of spinal affections, it is necessary to suspend the patient before commencing the application of the bandage; to attain this object, an apparatus consisting of a tripod, from which hang chin and armpit supports, is generally employed. A board placed between two projecting bookcases, or a hook driven into the ceiling, afford, however, equally good points from which the patient may be suspended. A thin gauze, skin-fitting undershirt should be placed on the patient before applying the bandage. This dressing has, of late, been somewhat modified by a gentleman of Chicago, whose name has escaped me. It is a well-known fact that sole leather, when thoroughly soaked, can be moulded into almost any shape, and that when drying it retains the shape of any object over which it

* Hamilton on Fractures, etc.

* Hamilton.

has been stretched; on account of this property it of itself makes a very good permanent dressing. As suggested by this gentleman, the leather is best adapted to the accomplishment of the desired object in the following manner: The plaster-of-Paris dressing is applied as already described; just before becoming thoroughly hardened the plaster jacket is cut open in front and removed from the patient; an accurate mould of the body is thus obtained; into this mould plaster is poured and allowed to set, over this final cast wet sole leather is stretched and permitted to dry. A leather jacket that accurately fits the angles and curves of the body is thus obtained; for ease of removal this jacket is slit open in front and eyeleted, thus permitting of lacing, fenestræ being cut as in the ordinary plaster dressing. This jacket, if necessary, may be strengthened by flat steel springs running perpendicularly; from it a rod may run up posteriorly, which, being curved at the top, will permit of the addition of a suspensory apparatus for the head, thus taking the weight of the head off of the spinal column, and tending to transfer it to the hips. A jacket thus made will stand almost any amount of ill-usage; it can easily be removed at night, or when desirable to perform ablutions, etc., and weighs but very little comparatively, a plain. leather jacket for a child nine or ten years of age weighing but about eighteen ounces. In those cases where it is desirable to place the lower limb in a fixed dressing, in order that a cure of a diseased joint may be effected by means of anchylosis, at the same time that it is desirable to keep up extension, and yet permit the patient, for the sake of his health, to be about, the following plan, which has already been suggested to the profession, can be pursued: The permanent dressing, no matter of what nature, having been applied to the diseased limb, is allowed to harden; a shoe having a cork sole, or an iron platform attached to the sole, being placed on the sound foot, the injured limb is thus permitted to swing free, making thus its own extension; by the aid of crutches the patient can then take the necessary amount of exercise to build up and maintain the stamina of the constitution. There is another apparatus, known as Barnes' wire splint, which, while the patient is in the recumbent position, may also be made to serve the purpose of a fixed dressing. In closing this paper I would beg to state that I do not consider that I have given all the forms of permanent dressings that have ever been, or are now employed, but I think the above list is one which will serve the purpose of summarizing the more commonly employed dressings used in surgery; and while none of the dressings here tabulated are decidedly new, yet there is a satisfaction in knowing that old things sometimes bear resurrection and rearrangement.

4431 *Main street, Germantown.*

FRACTURE OF THE OS FEMORIS.

BY E. MICHENER, M.D.,
Of Sylvania, Pa.

Having had an experience of more than sixty years in the treatment of fractures, I am willing to note, very briefly, some of its results. My remarks will relate to the fracture of the os femoris. While I am aware that comminuted and compound fractures, and those occurring at the extremities of the bone, are exceptional cases, and may sometimes require an exceptional treatment, I shall leave them to the skill and ingenuity of the surgeon to make such modification as circumstances may demand.

Whatever may be the methods and the results in hospital practice, success in the treatment of fracture of the femur, in a country practice, appears to be the exception rather than the rule. This too general failure has become an *opprobium medicorum.* The result is, too generally, a shortened limb.

The inquiry then comes up, Why this shortening? And the ready answer is, From the difficulty of keeping up the necessary extension during the treatment. Some, perhaps many, claim that there must of necessity be a shortening in all cases of this fracture. I have, indeed, recently known of a city surgeon turning over volumes of surgery, to stop the murmurings of a limping patient by proving this necessary shortening. I do most emphatically assert that in ordinary fracture of the shaft of the femur there need be no direct extension made; and, further, that there can be no shortening if the bone has been properly coaptated and held in position. There has, indeed, been much spoken and written about oblique fractures of the shaft of long bones allowing the fragments to slide readily past each other. This, I opine, is a very rare occurrence. If we should break a hundred pipe stems, at least ninety-nine of them would be transverse and the remaining one doubtful. So, I apprehend, it is with the os femoris. It is difficult to conceive of a force that could produce an oblique fracture; and my experience is confirmatory. I have never met with an oblique fracture of a long bone, except one—a tibia; it was fractured by a heavy, crushing force.

In every fracture of the femur that I have seen, and they have been many, the bone, when coaptated, was itself sufficient to preserve the length of the member, without having recourse to direct extension. It is, indeed, too probable that many fractures of this bone have been pronounced oblique for no other reason than the failure of the operator to place the fragments in juxtaposition. It may safely be laid down as a rule, which has few exceptions, that so long as the bone fails to preserve the length of the limb, that failure is sufficient evidence that the bone has not yet been set. I wish very forcibly to impress this rule upon the attention of the reader.

There has been much dexterity employed; much mechanical ingenuity expended, in devising dressings for this fracture, without a corresponding result, owing, perhaps, to a misconception of what was really needed. In these cases the three great indications, the three imperative duties of the surgeon, are—

1. Most carefully to adjust the fragments.
2. To prevent their flexure or rotation.
3. To provide every possible comfort for the patient.

In some twenty-nine out of thirty cases, perhaps in a double or triple ratio, this is all that the surgeon need or can do. Such has been my experience.

1. *The Adjustment of the Bone.*—Very often the fragments will be displaced by the fracturing force, or other conditions of the injury. When the patient is laid supine, if the limb is either shortened or the foot rotated, there must be displacement. An assistant should make extension, very gentle at first, and slowly increasing it, so as to obviate, as far as possible, the pain to the patient and the resistance of the muscles; both of which are greatly increased by a hasty procedure. It may require five or ten minutes, or a half hour, but the muscles will eventually relax and permit the fragments to drop into place, sometimes with an audible click. While the extension is still kept up, or even increased, the surgeon should carefully manipulate the limb, until fully satisfied of the result. The extension should be slowly relaxed, as it was begun. If any displacement should remain, or the member be found shortened, the bone has not been properly replaced, and the same process must be repeated. As already intimated, the bone must be made to maintain the length of the limb. When there is very great muscular resistance, or suffering, an anæsthetic may be indicated. When the fracture is properly set, the muscles will hold the fragments closely together, if flexure and rotation are avoided.

2. *The Dressing of the Limb.*—This procedure can only be predicated on the method selected. But there are a few principles which may be introduced, and which, if they are not applicable to all methods, should serve to determine the method.

1. The injured member should be placed in a semi-flexed position. I have always used an angular splint (say 120° or 130°).

a. Because it places all the muscles which act directly upon the broken bone in a semi-relaxed condition, a state of repose the least tiresome, and the least liable to occasion spasms.

b. Because the position of the leg and foot, being pendent over the angle of the splint, effectually prevents any rotation of the lower fragment on its axis.

c. If from any cause a mild extension should be advisable, it is afforded by the angular splint, which, from its nature, becomes an *extensor*. The taper of the thigh inclines the dressings toward the knee, or rather, tends to draw the thigh out of them. The leg, resting upon the anterior plane of the splint, opposes this tendency; and to the same extent exerts a tractile force upon the lower fragment. Though not otherwise necessary, it may help to maintain a steady bearing of the limb. It is the only tensile force that I have ever used.

2. The dressings should be exclusively confined to the fractured limb. Its integrity should be made complete, by its own appliances; and yet be left free to respond to the necessary movements of the body. The movements of the body cannot be avoided, and it is well to allow the limb to move with it, in its entirety, as a whole, but never by sections. There seems to be unnecessary care taken to confine the whole man, greatly to his discomfort. I have generally allowed my patients to lie down, or sit up, in the bed, at their own pleasure, and have not found a bone displaced by their doing so. This brings us

3. *To consider the comfort of the sufferer.*—To the relief, so grateful to the patient, which even a slight change of position affords, may be added the ease with which the dressings can be readjusted, almost without waking a sleeping patient, and the facility with which he can be transferred to another bed. Children can often be soothed by placing them on the lap of a kind nurse.

I would again earnestly recommend:—

1. A more careful adjustment of the fracture than has too often been made, until it is found to fully maintain the length of the limb.

2. The propriety of securing the complete in-

tegrity of the whole limb, with freedom for it to respond to any necessary or accidental movement of the body.

3. The semi-flexure of the limb.

There may be various methods which would secure the specified conditions when judiciously employed. I can only refer to the method which I have used for a long series of years with good satisfaction to myself and to my patients.

Having, even while a medical student, lost confidence in the methods then in use, I very early accepted the views herein presented, and constructed an apparatus for fracture of the os femoris in accordance therewith. The only appliance that I have ever employed.

The Description.—The basis of the apparatus is a concave splint, cut across in the middle and united with hinges, and held at any desired angle by a binding screw. Both the ischiatic and the pedal extremities are made readily extensible for adaptation to different persons. At the foot there is a sliding standard, carrying a laced shoe, which can be raised and lowered at pleasure, both movements having binding screws. The edges of the splint have each a series of brass buttons, with leather straps to buckle over the limb.

The minor thigh splints are three in number; they are formed by glueing three strips of light wood on soft leather or canvas. The middle pieces have spuds on the upper side, to prevent their slipping endwise. A few folds of soft flannel, to pad the splint, and a bandage of strips, complete the essential dressings.

The Application.—Having adjusted the fracture and waited to know that there is not any retraction of the limb, then regulate the length of the upper section of the splint by the sound limb; apply the pad, and lay on the bandage strips. The limb may then be laid carefully on it (either straight or angular), the bandage and minor splints applied, and the straps securely buckled over them. If the splint was left straight, it may now be gently flexed to an angle of about 120°. The foot adjustment is easily completed. A similar bandage below the knee is some safeguard against spasmodic contractions of the muscles.

The patient is now tired, and a lunch is waiting in the dining room; let him rest. But, before going home, carefully inspect every part of the dressing, and if necessary re-adjust it, and give the needful directions to both patient and nurse.

The reader may call all this egotism. Perhaps it may be. But the surgery of fractures, especially of the os femoris, is so largely empirical, so often unsuccessful, that experience seems to be the only safe basis for prescriptive rules. I will only add, that I had my axes all nicely ground before I entered my eighty-seventh year.

Hospital Reports.

CLINICAL CASES—JEFFERSON MEDICAL COLLEGE HOSPITAL.

WITH REMARKS BY J. M. DA COSTA, M.D.,

Professor of Medicine and of Clinical Medicine.

REPORTED BY CHARLES R. CRANDALL, M.D., DECEMBER 6th, 1880.

Goitre.

The name of this patient is Mary E., and her age is nineteen years. She supports herself by carpet-weaving. For the last two years, such is her statement, she has had a growth in her throat. At times it is quite large, and then it seems to lessen in size, hence undergoing various changes. She is also a great sufferer from dyspeptic symptoms, and has nausea, vomiting and constipation—in one word, she has the symptoms of marked atonic dyspepsia. Associated with all of this, there has been some loss of flesh. When we look at her we are struck with her marked anæmic appearance. There is a general pallor, and also pale conjunctivæ, bloodless lips and a coated, flabby tongue. When we examine the swelling in her throat, of which she complains, we notice that there is a decided enlargement of the neck. This enlargement is evidently connected with the thyroid gland, and is somewhat tender to the touch.

Now, as there is often some form of heart affection connected with these enlargements, I will examine that organ. I find the motion rather rapid, the first sound distinct and the second sound more distinct than normal; but there are no murmurs. Placing my stethoscope over the enlarged thyroid there are well-marked transmitted cardiac sounds, but no murmurs.

She also calls my attention to some small swellings back of her ears. I find, upon examination, that there is some enlargement of the cervical glands. There is no history of malaria or any constitutional disease. I learn, upon inquiry of her mother, that the girl has a great deal of irregularity at certain periods.

I shall diagnose and treat the case to be one of goitre, and there are three possibilities as regards its nature and origin:—

1. It may be goitre due simply to enlargement of the thyroid gland.

2. It may be an exophthalmic goitre, connected with functional disorder of the heart.

3. It may be goitre owing to a general tendency to glandular enlargements, and depending, primarily, upon the great derangement of the digestive functions.

In discussing these possibilities, the practical point is for us to make our diagnosis between the first and second of the possibilities. I shall decide against this being a case of exophthalmic goitre, for the following reasons: Such a case, to have gone two years, would have shown much more disturbance of heart and of vision than we

have here. In exophthalmic goitre it is the heart that is primarily affected, and the disorder is followed by an enlargement of the thyroid. Furthermore, had this been a case of exophthalmic goitre there would have been great changes in the appearance of the eyeballs: they would have been enlarged and bulging, whereas, here, they are unchanged.

Another clinical point which I have been noticing for the last few years is that when I place my stethoscope over an exophthalmic goitre, I hear most marked murmurs both in systole and diastole. Indeed, I often hear, besides these, a sort of roaring, and I have come to rely on these observations as a test. Not finding such symptoms here, I must exclude an exophthalmic goitre.

Now, in favor of this being a case of goitre due to general glandular enlargement, and associated with ill nutrition, we have the history of atonic dyspepsia, the profound anæmia and the undoubted evidence of enlargement of the glands of the neck.

In this case, if we want to obtain success, we must resort chiefly to constitutional treatment. The remedy I want to give is the syrup of the iodide of iron; it is here preëminently indicated; but unfortunately it is not generally well borne by the stomach It is an excellent alterative in such cases, and we had better try it, at least. I will prescribe, therefore, twenty drops of the syrup of the iodide of iron, twenty drops of glycerine, and water sufficient to make a drachm dose. She is to take this, well diluted, three times daily, after meals. She needs, besides, a generous amount of food, consisting of meat, milk, oysters and stale bread. I would not advise potatoes or bulky food, for the object is to enable her to have solid foods of a digestible and nutritious nature. Locally, we will, for the present, do nothing.

Sciatica.

The next patient is James McC., who complains of pains along the sciatic nerve. They commenced last September, and have lasted ever since. The pain begins at the left trochanter and extends down even as far as the toes. He has been treated a great deal for this trouble, but has not received much benefit. Internally, he has taken freely, he says, of the salicylates, and also quinine and iron. Externally, he has been blistered, but that has also failed to give him relief. There is no history of specific disease. Nor is there any history of rheumatism, unless the sciatica itself be regarded as of a rheumatic nature. The pain is worse at night. There are times when he is comparatively free, but there is no entire day in which he does not suffer more or less. Hence, there are lulls, but no distinct cessation of pain. Motion, as he walks, is not much impaired. The seat of pain is in the region of the left trochanter and the parts are tender to the touch. Running my hand along the course of the upper part of the nerve, he winces. He has lost some flesh, is pale and has poor digestion.

As we have had a number of cases of sciatica recently, I will not go into this case to any extent, but will direct your attention to the methods of treatment.

As a general thing, cases like this yield readily to blisters, conjoined with the use of hypodermics and the usual internal treatment. This case does not, and, therefore, we must resort to other means. Having had such good results from the use of chloroform of late, we will again employ it. It will be given by hypodermic injections near the tender spots, as in the previous cases. Internally, I shall give the ammoniated tincture of guaiac, with iodide of potassium. It is a very disagreeable remedy to take, but it is one often of great value in obstinate cases like this. I would advise ten grains of the iodide of potassium in two drachms of the ammoniated tincture of guaiac, after we have used the chloroform hypodermically for a few days.

Now, here is another case of sciatica. The man is forty-six years of age, and has been a sufferer for a long time. Here the pains begin at the right sciatic notch and extend down the outer side of the leg. He can walk well, but not without pain. As he exposes his leg, there is evi dently some atrophy. The tenderness along the nerve is slight, and nothing like what it was in the other case. Here we shall also pursue the same treatment, as regards the chloroform. In these cases we use the spirits of chloroform, which is not as strong as pure chloroform. The strength is one part of chloroform to twelve of alcohol. The amount administered at each injection is about a syringeful. As a great deal of the success depends upon how the injections are made, I will have one given now in the presence of the class.

The injection of chloroform, a plan of treatment so ably advocated by Prof. Bartholow, must be made deeply, near the nerve and at the seat of the greatest pain. In this instance the painful spot is near the trochanter, and hence in the region of the gluteal muscles. Take the syringe and insert the needle deeply into the flesh. Inject slowly, then withdraw, and afterwards place the finger over the wound for a moment, to close it. Usually these injections cause a burning sensation for a few moments, but this man says it does not hurt him much, if any at all. We will repeat this injection daily for a few days and adopt no other remedy until a fair trial has been made.

Localized Chronic Peritonitis.

The next case is one of much interest, and the man comes from a distance for an opinion. His name is John H. M.; he is thirty-six years of age. Two years ago he noticed a lump, as he terms it, in his left umbilical region, which has gradually enlarged to its present size. He states that it was painful from the first, and I find that it is painful to the touch now. Pain has been a prominent symptom all the time. He says also that, at first, he thought the lump was loose, but of late it appears more fixed. Making further inquiry I learn that six weeks before this lump appeared he was thrown from a wagon and sustained some injuries. He says, further, that he has not lost flesh. At present his appetite is not good, he vomits occasionally, the bowels are loose, the tongue is slightly coated and red. The urine has been examined and the results are negative.

Now, let us proceed to investigate more closely. By palpating I find the tumor very tender to the touch; the tenderness is mostly in one spot and not in proportion to the size of the swelling. I perceive a certain amount of hardness at one spot, but it is also out of proportion to the general swelling. There is moderate dullness, but not as marked as would seem from the appearance of the parts. Fluctuation is perceived, but very distinct, low down in the abdomen: there is none at all in the upper part of the abdomen. Splenic and hepatic dullness are not increased. Auscultation with the stethoscope reveals the beating of the abdominal aorta, but without murmur or thrill, and without lateral pulsation. I direct the patient to turn over, and listening along his back, I find no murmurs.

There is swelling of his feet and legs, but not very marked. The patient says the swelling is worse at night. Having gone over the case, I will ask the class to make the diagnosis. In reply I hear suggested "omental cancer," "abdominal aneurism," "floating kidney," "local peritonitis," and "chronic peritonitis." It is evident that we have several views to choose from, and we will proceed to notice them in their turn. In an obscure case like this, it is necessary to think of all possibilities and then set aside one after another, by a system of exclusion. Let us set to work, then, and eliminate such views as are not justified by the symptoms revealed.

The first view mentioned was cancer of the omentum. This has in its favor such symptoms as tumor, pain, tenderness and history of injury. These points make the view one worthy of consideration, but I pronounce against it. My reasons for so doing are as follows: In the first place the man's nutrition is too good for one suffering from cancer. Had there been a cancer for two years he would have been much emaciated and there would have been evidence of cancerous cachexia. Again, if this were a case of cancer there would be a general dullness coinciding with the entire mass. But, as I repeatedly pointed out to you, there is not dullness corresponding with the general size of the swelling.

A second view is that of abdominal aneurism, and there are reasons in its favor. There is a tumor in the abdomen, pain, pulsation, good nutrition and a disturbance of the circulation, as shown by the œdema of the lower extremities. But, as against such a view, there is no thrill, and there is an absence of the marked pulsation which might be expected in a tumor of this size. Besides, the pains of an abdominal aneurism are usually felt in the back; they are sharp, fierce, and often shoot down the entire leg. Hence, owing to the absence of the proper physical signs, I must likewise decide against this opinion.

The suggestion of floating kidney also claims our attention for a moment. In favor of this view is the tumor, good nutrition and history. But, as opposed to such a view, the situation of the tumor is wrong; it is entirely too low down. A movable kidney would be away up, under, or just below the ribs. It would not be very painful, and there would not be the swelling as in this case. Therefore, we must dismiss this view.

Now we are brought to a consideration of the diagnosis of peritonitis, which is the correct one. This is a local peritonitis with some effusion, the result of an injury. The symptoms in favor of this are some fluctuation, great tenderness and a comparative absence of dullness, or, at least, of extended dullness. The fluctuation indicates some effusion into the peritoneal cavity, and also points to peritonitis. The œdema of the extremities is accounted for by pressure on the large veins returning blood from the lower extremities.

In point of treatment I would advise, locally, the iodide of lead and belladonna plaster, in equal quantities of each. If a plaster of this kind should prove too heavy, the ointment of lead and of belladonna may be used. Internally, I would suggest the iodide of mercury, with opium, say one-eighth of a grain of the former, and one sixth of a grain of the latter. The patient should be kept quiet in bed for a time. Under this alterant treatment we may hope to see rapid improvement. Subsequently, when the bowels are a little more under control, I will prescribe with a view of relieving the dropsical swelling and promoting absorption.

Editorial Department.

Periscope.

The Treatment of Insomnia.

The following suggestions are made by Dr. James More, in the *Practitioner*, Dec., 1880:—

During sleep the cutaneous capillaries are in a state of dilatation, so as to ensure that degree of cerebral anæmia which the physiologist tells us is a necessity to the presence of the "drowsy god." This flushing of the skin surface with blood, with its consequent cerebral anæmia, is fostered and provided for in the warm bed-clothes which the habit of ancestral civilized society has made almost an instinct, and stamped as a physiological necessity.

The physician, when called upon to prescribe for insomnia, meets with it in various aspects, but in a large number of instances it is due to direct or indirect hyperæmia of the brain.

He sees it in the disturbed circulation of the bilious or gouty old gentleman; in the anæmic girl or the plethoric matron; in the patient with cold feet, or in the one again with flushed face and throbbing temples. In each and all the fundamental condition of sleep—cerebral anæmia—is absent, and what is wanting is something that will unload the cerebral vessels of their surplus blood. The surplus may be due either to arterial hyperæmia, or to venous engorgement, and the skillful physician will follow the indication.

Dilate the cutaneous capillaries, and we withdraw the surplus blood from the surcharged brain to the skin. A glass of hot grog at bedtime, a foot-bath of hot water, with or without mustard, a bottle of hot water to the feet, may be all that is necessary to dilate and flush the peripheral arterioles. Such, in many cases, act as true, safe and scientific hypnotics.

Failing in this direction, we take to those remedies which the therapeutist tells us dilate the cutaneous capillaries; and foremost, and safest, and most reliable among these we name bromide of potassium. This, with a little tension help from digitalis, forms an almost certain sleeping draught in most of the above conditions. A draught as follows might be given:—

℞.	Bromid. potass.,	gr. xxv
	Tinct. digitalis,	gtt. xv.

This failing, the addition of even so small a dose as one drachm of syrup of chloral hydrate will "make all the difference between success and failure." Of course, in many cases a slight anodyne effect is wanted to complete any special draught, and the addition of a few drops of chlorodyne or Battley's sedative, besides doing this, seems to accentuate or intensify the action of the vaso-dilators.

This was forcibly illustrated in the case of a patient I saw not long ago, where almost absolute sleeplessness had existed for some weeks, the result of mental excitement and worry. He had been taking as much as six drachms of syrup of chloral nightly, without effect, and viewing it clearly as a case of cerebral hyperæmia, I prescribed the following combination, which acted at once and with marked and decided effect:—

℞.	Bromid. potass.,	gr. xx
	Tinct. digitalis,	gtt. xv
	Syrup. chloral hyd.,	ʒj
	Liq. opii sed.,	gtt. v.

We do not mean to aver that such a combination acted solely on the hydraulic principle, or had no decided neurosal effect on the brain cells, but what we hold is that its power in dilating the cutaneous arterioles, and thus providing for cerebral anæmia, is its chief *modus operandi*.

Anæsthesia by Compressed Nitrous Oxide.

We read in the medical *Press and Circular*, November 3: Dr. Blanchard has just published, in the form of a *brochure*, a complete description of the anæsthetic of Paul Bert (protoxide of azote under pressure), with an analytical *exposé* of all the operations in which it was used, up to the present. We find that seventy operations were performed under its influence, of which thirty-one were by M. Paul Bert, sixteen by M. Sabbé, two by Marion Sims, etc. In this number were comprised ablations of tumors, amputations, resection of nerves, reduction of luxations, fistules, and anal fissures, lithotomies, resections, ablation of fibroid tumors of the uterus, etc. As to the advantages of this method of M. Paul Bert, the first that Dr. Blanchard signalizes is the rapidity with which the anæsthesia is produced, and the complete absence of all excitement. Secondly, that once insensibility is produced, the man is so completely under its influence, that were it not for the breathing, which remains perfectly regular, he would seem as dead. This state can last half an hour or an hour without changing. During this time the blood preserves its red color and loses none of its oxygen; the heart beats with its usual regularity, and the temperature does not increase. Thirdly, that at the third or fourth respiration of pure air the patient returns immediately to sensibility and to *bein être*. The period, more or less long, of torpor, numbness and nausea, after the use of chloroform or ether, are not observed. However, it happens frequently that the patient returns to consciousness some time before insensibility has completely disappeared, but this, instead of being a drawback, is considered by M. Blanchard as an advantage, especially in operations on those parts of the face covered by the inhaling mask. It was thus M. Péau had been able to extirpate an epithelioma of the lip after the apparatus was taken off. Such are the advantages. As to the inconveniences attending this method, only one is considered of any importance, the difficulty of procuring a room *à l'air comprimé* outside of Paris or large towns. It is thus evident that in country practice or on the battle field this anæsthetic could not be employed.

Case of Hemorrhagic Diathesis.

The following good example of this is given by Prof. George Buchanan, in the Glasgow *Medical Journal*, November, 1880:—

The patient, a young man, aged twenty-four presents a strikingly anæmic appearance, and is so debilitated by protracted hemorrhage that he is quite confined to bed, becoming giddy if he sits up even for a short time. Four years ago he was admitted to the hospital on account of continued hemorrhage following the extraction of a tooth. The actual cautery was used on that occasion, and after a short residence he was dismissed apparently quite well. A few days later, however, a return of the hemorrhage occurred. Plugging with lint and perchloride of iron was resorted to, and it finally ceased. The account of the present occurrence is that, on the 29th of August last he had one of the upper left molars extracted by a dentist, to whom no mention was made of the previous troublesome hemorrhage; blood continuing to flow, a plug of lint and matico was applied, but with no very good effect. The plugs were renewed at intervals for a week, but failed thoroughly to control the hemorrhage. The patient then consulted Dr. Donald M'Phail, who, on September 5th cauterized the bleeding surface and plugged the cavity. This procedure appeared at the time successful, but on the same night oozing took place through the plug, and two days later the hemorrhage became more active, and continued intermittently for a week, when it stopped spontaneously After two days it again commenced; a gutta percha plug was now applied, and with good effect, but the gum by this time had become so tender that the patient could not endure the necessary pressure, and he was therefore advised to enter the hospital, which he accordingly did on the 18th of September. On the 21st chloroform was ad-

ministered, and Professor Buchanan removed the adjacent tooth and some dead bone in the neighborhood of the bleeding. The antrum of Highmore, which contained a considerable quantity of fetid pus, was then opened, a thick pyogenic membrane scraped out, the actual cautery applied, and the antrum stuffed with lint. In spite, however, of this very thorough treatment, the bleeding returned on the 26th, but was easily controlled by re-stuffing the antrum. On the 30th it again recurred. At this date subcutaneous injection of ergotine was begun, four grains being administered three times daily, as a rule, for about ten days, and afterwards less frequently. This appears to have had a good effect, as up to the date of writing (14th of October) there has been no return of the hemorrhage. During this period the plug was allowed to remain in the antrum, but ultimately it softened, and came away in shreds.

Recent Views of Evolution.

In a recent address by Prof. Cleland, Professor of Anatomy in the University of Glasgow, he observed that while the experiments of Pasteur and Lister conclusively proved that there was no such thing as spontaneous generation in the present. the difference in character between development and the laws of matter made spontaneous generation an inadequate hypothesis to account for the first appearance of life in the past. After dealing at some length with the various arguments that had been adduced in reference to this theory, Professor Cleland said it was a legitimate position to take up, that all the evolutions of nature were definite, but that the series of such evolutions were indefinite in number and kind: that individual evolutions, like other individuals, were finite, but formed members of a larger total. So, in the evolutions of organization we saw vortic units, the textural elements, receiving and rejecting currents of material, while they maintained during a finite lifetime their individuality, and these united into larger individuals subject to the same law. In the evolution of vegetation, which everywhere exhibited definite individuals, or organs, structurally united in indefinite series, the highest groups were composed of compound individuals in whose structure the most complex, and in every way highest, evolution occurred in connection with the highest vegetable function, the perpetuity of the series of finite individuals; and, the flower once perfected, evolution had ceased, though variation continued. The largest feature in the evolution of both plants and animals consisted in that which was simple passing into the manifold, and the manifold being compacted together in a higher unity. And however imperfectly zoologists might yet agree as to the evolutions in detail in different parts of the animal kingdom, it was plain that in the human form an organism had at last appeared constituting an abode of intelligence such as existed in no other, and that in man alone intelligence reached the capability of ascending beyond the wants of the physical organism in the contemplation of abstract truth. That organism had not improved with the progress of discovery in modern science, but was, at least, as complete in the heroes of antiquity as in those of recent times. It was surely, then, an assumption to suppose that evolution as distinguished from variation in animal form must go on unchecked till astronomic change shall have ended the capability of this world to support life. It was far more probable that the evolutions of the future were to be sought in realms with which the zoologist acknowledged he had nothing to do, and take origin out of the special psychical characters of man. For his own part.he maintained that the universe presents an endless unrolling of definite evolutions. and that the evolutions of organization were completed, though its variations continued, while other evolutions were at work, and more would appear.

Ear Disease Following Scarlet Fever.

The London *Medical Times and Gazette*, Oct. 30, gives the treatment of Dr. Merian, of Basle. He holds that the best preventive of aural mischief in scarlet fever is the arrest of the primary diphtheritic process in the pharynx. He therefore cauterizes all patches that can be discovered, at first twice, and afterwards once a day, with a ten per cent. alcoholic solution of salicylic acid. A piece of cotton-wool of the required size is wound round the end of a small knitting-needle, on which a double screw is cut, and the wool, soaked in the liquid, is gently pressed on the part. Some pain is caused, but it does not last long. Nausea is best combated by ice, and the taste of the spirit can be concealed by adding one or two per cent. of oil of wintergreen to it. For the back of the soft palate, and for the pharynx, curved instruments are, of course, required.

The second preventive measure is the use of the nasal douche once a day, where the patient is intelligent enough to bear it. Following Tröltsch (*Archiv für Ohrenheilk.*. Bd. IX, S. 191), Dr. Merian provides a printed form of directions for its proper manipulation. The apparatus consists of an Esmarch's irrigator, with a tube two feet long, furnished with a glass nose-piece. A litre of warm water, in which seven and a half grams of common salt have been dissolved, is the liquid employed at first. Without the salt the water irritates the nares. Later on, one or two tablespoonfuls of salicylated spirit are added to each litre. It is very important that the douche be slowly administered, the patient breathing quietly with open mouth, and not speaking or swallowing. The irrigator must not be raised more than one foot above the level of the head, else water may easily enter the Eustachian tube and penetrate the ear, giving rise not only to pain, but possibly to tedious inflammation. Besides the douche he recommends gargling every two or three hours with a dessertspoonful of salicylated spirit in a small glass of water, and the application of an ice-bag to the front of the neck from one mastoid process to the other. Pieces of ice are also allowed to dissolve in the mouth, but the patient is told to spit out the water formed from it. Very small children are excited to sneeze, and so temporarily clear their nares, by a snuff of pure salicylic acid, which for infants may be diluted with equal parts of starch powder. Before leaving the subject of prophylaxis, Dr.

Merian mentions that it has seemed to him that consecutive ear affections have been most often met with in cases of scarlet fever treated by cold baths or the cold "pack," both of which tend to cause congestion of the head.

In treating the acute stage of the otitis itself he uses ice externally, protecting the very sensitive lobe of the ear from the cold by flannel or a piece of wadding. The pain is relieved by iodine paint, or by iodoform ointment (iodoform, ol. fœniculi, āā 1.0 gram, vaseline 8.0), covered with guttapercha tissue, and over it the ice-bag. Very severe pain yields to equal parts tinct. opii and water, ten to twenty drops being poured into the meatus. The intermittent pains occurring toward evening or by night, and which are very depressing to the patient, require quinine (0.20 to 0.50 gram) internally.

As soon as the acute stage is over, air should be blown into the tympanic cavity with a Politzer's bag, to restore the equilibrium of the internal air with the external atmosphere, and allow the membrane, which has yielded to external pressure, to recover its position. If, however, in spite of these measures. the fever continues, the mastoid process is tender, and dull pain is felt over the whole head, paracentesis of the tympanum is indicated. The opening made should not be too small, and there is generally rapid relief after the operation. The escape of secretion from the middle ear should be aided by Politzer's bag. Syringing should be avoided the first day, and wadding, frequently changed, alone used to soak up the discharge. The patient is ordered to lie on the side of the affected ear; and if, as often happens, great improvement follows the puncture, iodine and ice alone suffice for the cure. If, however, the discharge is copious and with difficulty checked, the ear is syringed with a five per cent. solution of sodic sulphate, which Dr. Merian has long preferred to all others for this purpose. The wadding he uses is boracic. The very destructive diphtheritic forms of otitis media require the membranes, which often fill the whole osseous meatus and obscure the tympanum, to be scraped away energetically with a curette or removed by a "Wilde's snare," and the parts to be dabbed with salicylated spirit, or dusted with pure salicylic acid; the ear must also be syringed several times daily with diluted salicylated spirit (one to two dessertspoonfuls to 100.0 grams water). These proceedings are rather painful, but generally wonderfully efficacious. Profuse suppuration in these latter cases, without fever, is best treated by thorough syringing twice a day, either with diluted salicylated spirit, carbolic acid (acid. carbol., sp. vini, āā, one dessertspoonful to 100.0 grams water), or boracic acid (one to two dessertspoonfuls to water Oss). By the adoption of these measures at the outset, Dr. Merian is convinced that the number of cases of chronic ear disease after scarlet fever will be much reduced, as well as the danger to hearing and to life which is its too frequent consequence.

—Readers should look over the Advertisements. They will be sure to find something of interest among them. In corresponding with advertisers, this journal should be mentioned.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

OUR EXCHANGES.

——*St. Nicholas*, for December, the Christmas number, came a little late, but is so beautiful and such a delight to the "young folks," that we were well repaid for its delay.

There is nothing to compare with this charming magazine for children, in the country.

The Sunday School Times is one of our best valued and most regular exchanges. It is unsurpassed, as a valuable aid to the Sunday School teacher, and for home study of the Bible lessons of the year.

The January number of *Scribner's* contains an account of the aims and methods of the new Horological and Thermometrical Bureau recently established by the Winchester Observatory of Yale College, from careful personal inspection on the spot. This is the first bureau of the kind established in this country, and cannot fail to raise the standard of excellence in both clocks, watches, and thermometers. The curious machinery used to correct watches to the tenth of a second, together with some singular facts in the behavior and habits of thermometers, make the article of more than usual interest to the reader. The same number also contains some account of Mr. John La Farge's and Mr. Louis C. Tiffany's recent work in stained glass.

The January number of *Lippincott's Magazine*, which opens a new series at a reduced price, presents itself in an artistically designed cover, that at once attracts and pleases the eye. This favorable impression is more than confirmed by an examination of the contents, which are generally light and of a thoroughly popular character, while marked by literary excellence of a high order. The illustrations, too, are carefully executed. The new arrangement of the editorial matter cannot fail to prove attractive, and altogether the number is full of promise.

——In an address before the American Academy of Medicine, Dr. F. D. Lente gives some stirring words in favor of the higher education of medical men. Published by Bermingham & Co. New York.

——Dr. H. Wardner's Essay on "State Medicine," before the Tri-States Medical Society, has been reprinted, and may be had of the author, Anna, Illinois.

BOOK NOTICES.

Proceedings of the Alumnæ Association of the Woman's Medical College of Pennsylvania. 56 pp.

This unpretending volume cannot fail to be read with interest. It is one of the first which owes its origin to the female physicians of this country as a body—so far as we know, actually the first.

The Proceedings are principally made up of reports of cases in gynecology. There is, however, an address on dysmenorrhœa, by Dr. Anita E. Tyng. She attacks the theory that it is usually the result of constricted cervix; believes that it is most frequently caused by spasmodic and painful contractions of the muscular fibres of the uterus. She adds, we think very justly—

"This theory serves as a warning against the so-called forcing medicines. I have observed that the most robust women have, comparatively, a small quantity; delicate ones menstruate more abundantly. I, therefore, deprecate all medicines for increasing the quantity of the menstrual fluid, except where some nervous or congested condition demands that relief. It seems to me that the theories of spasmodic muscular contraction I have quoted account for this want of relation between quantity of fluid and size of the os. Statistics are wanted as to the nervous and other bodily conditions of the patient in cases of dysmenorrhœa; this is apt to be left out of the reports of cases. There is too great a tendency to treat the uterus only and forget to treat general symptoms. I have had success in several cases by general treatment only, leaving the uterus untouched."

Several cases of ovariotomy are given, and Dr. Romania B. Pratt sends a very instructive medical report on Utah Territory. Of the diseases of that Territory she writes:—

"As I scan the table of death, the monthly mortuary of Salt Lake City, for 1879, I observe the deadly footprints of the epidemic of diphtheria. The total number of deaths from this disease in 1879 was 156, the greater number under ten years of age. I find the next greatest fatality in acute lung diseases; pneumonia 50, bronchitis 5. It is said that this region of country is peculiarly favorable to the recovery of patients suffering from phthisis pulmonalis, if destruction of lung tissue is not too far advanced. The report gives ten deaths from this disease. I will mention the fact—interesting on account of its negativeness—the record of one death from syphilis. I have not met with a case yet in my practice."

Cases of ovariotomy, tonsillitis, perineoraphy, pelvic hæmatocele, ventral hernia, etc., are recorded.

The attention of the Association was called to a new leather splint, the invention of Dr. Cynthia Smith, which had been submitted to the managers of the Woman's Hospital, with an application for the prize offered by that body for original inventions of surgical appliances. It was examined by the members present, and pronounced an original and useful invention.

A Practical Treatise on Diseases of Women By T. Gaillard Thomas, M.D., etc. 5th edition. Philadelphia, H. C. Lea's Son & Co., 1880. Half Russia. Price $6.50.

It is superfluous to enter into any detailed examination of this well known and standard production. The present edition appears after a thorough and careful revision on the part of the author. He tells us in the preface that he has devoted two years of labor to the endeavor to render it all that it should be, in view of the rapid advances made in this active department of science. The marks of this labor are evident in almost every chapter of the book; and it may be said to be as good a presentation of gynecology—as complete and as exhaustive, considering its limits—as any which is to be found in any language. Of course, it has not the fullness of Billroth's great enterprise, but as a text-book it is superior to it.

We must not omit to mention the beautiful style in which it is bound—in half Russia. The publishers inform us that in order that the taste for fine binding may be encouraged, the prices have been fixed at so small an advance over the cost of sheep as to place it within the means of all to possess a library that shall have attractions as well for the eye as for the mind of the reading practitioner. That safety in carriage may be insured, each volume, wrapped in soft paper, is enclosed in its individual box.

A Manual of Medical Jurisprudence. By Alfred Swaine Taylor, M.D., F.R.S., etc. Eighth American Edition. By John J. Reese. Philadelphia, H. C. Lea's Son & Co., 1880. Half Russia. Price $6.50.

The long and successful life of this mannal speaks abundantly for its merit, as well written, oft revised and ably edited. The author is now deceased, and among his latest labors was the preparation of this edition for the American profession. His additions, together with the notes and commentaries contributed by Dr. Reese, bring the work quite up to the most recent progress in this particular branch. Although written originally for the horizon of England, most of the matters discussed belong to science and to common law, and are quite as well adapted for instruction in the United States as in Great Britain. There are also notes by Judge Penrose, which further render the work American in tone.

This is one of the volumes which the publishers put out in half Russia binding. It is very neat, and cannot but prove durable and popular. The cost is so little that it is well worth the difference.

THE

Medical and Surgical Reporter,

A WEEKLY JOURNAL,

Issued every Saturday.

D. G. BRINTON, M.D., EDITOR.

The terms of subscription to the serial publications of this office are as follows, payable in advance:—

Med. and Surg. Reporter (weekly), a year,	$5.00
Half-Yearly Compendium of Med. Science,	2.50
Reporter and Compendium, - - -	7.00
Physician's Daily Pocket Record, - -	1.50
Reporter and Pocket Record, - - -	6.25
Reporter, Comp. and Pocket Record, - -	8.25

For advertising terms address the office.

Marriages, Deaths, and Personals are inserted free of charge.

All letters should be addressed, and all checks and postal orders drawn to order of

D. G. BRINTON, M.D.,
115 South Seventh Street,
PHILADELPHIA, PA.

WHY BE A DOCTOR?

There are about a thousand young men in Philadelphia, this winter, preparing themselves to practice medicine. There are as many more in New York city, and again as many more in other cities within the limits of the United States.

Statistics and daily observation indicate that the physicians in this country are increasing in proportion to the population; in many cities they already number one to every five hundred inhabitants.

What is it that leads so many young men to adopt the profession of medicine? It will be a fruitful inquiry if we can analyze their motives.

It is not an easy profession and it is not a lucrative one; it is rather expensive to learn, and involves moderately hard study. The average income must necessarily be small, when, as above stated, the hundred families (allowing five persons to a family) are all the *clientèle* that the average doctor can expect.

As an avocation it is a very respectable but not a very profitable one. One of the New York newspapers remarked, at the last meeting of the American Medical Association, that such a large body of intelligent men, *representing so little capital*, could not be found in any other business or profession. Plenty of doctors do not average, year by year, in solid money, from their practice, more than two thousand or twenty-five hundred dollars a year, and consider themselves lucky with that; plenty fall far short of that.

Archbishop Whately pointed out, with reference to the Church of England, that its attractiveness was not the ordinary salaries, which were too low to repay men of ability, but the chances for a bishopric with ten thousand pounds a year. The great prizes are what tempt those who invest in a lottery. So it is with our profession. There are a few men in it whose practices are worth $25,000 to $50,000 a year; a *very* few who can beat that. Hope whispers her flattering tale in the ear of the ardent youth, and he has not yet learned enough of the vanity of human expectations to doubt her siren voice. He thinks he, too, may attain this first place.

Another reason is, our profession *requires no capital*, or very little. The graduate, furnished with his sheepskin, is at once prepared to do all that opportunity offers to his hand. He has completed his investment in obtaining his education. This is unquestionably a powerful inducement with many, and one which leads them toward the professions rather than toward mercantile pursuits.

Some are led to medicine because it appears an *easy* way of making money. The doctor calls, chats a few minutes, scribbles a few lines on a bit of paper, drives away, and sends in a bill for two or three dollars. This seems so marvelously easy to the imagination of the hard-working classes that the temptation is strong to save enough to put one of the boys at a medical college. How illusive the appearance is we need not say to the readers of this publication.

The above are the less noble motives which prompt to enter our profession, but probably the more common ones.

There are young men influenced by something better. A few are impelled by the desire to

lead a useful life, directed toward the alleviation of the physical suffering of their fellows; a few are born physicians, and occupied themselves as boys with such matters, liking to help in sickness, and to read medical books.

There is also the scientific spirit, which is now widespread, the desire to investigate the order of nature, which finds its satisfaction more in the medical than in most other recognized businesses. Prof. J. BURDON-SANDERSON, the distinguished physiologist, touched happily on this instinct in one of his recent addresses:—

"Although medicine," he said, "as an art has grown by the slow accumulation of experience, it has, since it arrived at maturity, given birth to a science the purpose of which is to investigate the origin and nature of disease. This science we call the science of medicine, or pathology. The problems which it offers possess interest enough to make them attractive to all truth-seekers—an interest which is increased rather than diminished by the fact that the amount of knowledge which as yet exists as to the way in which the human body is acted on by its surroundings so as to produce disease is very scanty. We may confidently hope that before another twenty years have passed there will be a great increase of this knowledge, for, at the present moment, the systematic investigation of the nature and causes of disease is being carried on with unprecedented activity, and we have the satisfaction of seeing even the darkest corners of the subject one after another made accessible to the 'dry light' of science. The cause which has determined this tendency to progress is not far to seek. Pathology is being carried forward by virtue of its association with other branches of physical science. To our predecessors of a generation or two ago, the notion that the suffering human body is subject to the same laws as those which regulate non-living matter, and that all our ailments are themselves the products of agencies which come within the cognizance of the chemist and physicist, seemed inadmissible and almost revolting. Now we have learned that, in so far as we understand the processes of life, whether healthy or diseased at all, we get at this understanding by comparing them with better-known processes which present themselves to our observation in the world outside of us. It is on this principle that all researches as to the origin and nature of disease must, if they are to lead to permanent results, be founded."

Would that the spirit which imbues these lines were more generally diffused. As it is, there are exceedingly few physicians who, after they enter practice, continue their profession as anything more than a means to gain money and social reputation. Had they commenced its study from more elevated motives, they would make these considerations secondary to others; and were such motives more common with students, the relations between practitioners would be more harmonious than is generally now the case.

THE BACILLUS AS THE SOURCE OF ANTHRAX.

It was supposed to be a great discovery when microscopists announced the presence of the *bacillus* in the blood of animals with anthracoid diseases. The organism was received as the undoubted cause of the malady. But further researches throw serious doubts on this view. H. BUCHNER, and later, Prof. A. P. FOKKER, of Göttingen, have shown conclusively, not only that there are varieties of malignant anthracoid disease in which the bacillus is not found in the fluids of the body, but they have proven that there is absolutely no difference at all—at least, none that can be detected by observers—between the so-called *bacillus anthracis* and the innocent *bacillus subtilis* found in any infusion of hay (*Centralblatt f. Med. Wiss.*, Oct. 30).

In fact, this and other facts which have been laid before the profession go more and more to show that neither bacilli, nor bacteria, nor micrococci, nor any other of these low organisms whose presence can generally be detected in the pathological secretions and in the fluids of the body when diseased, have any direct etiological relation to the diseases present. They are there, as are maggots in putrefying flesh, not as cause, but as result of the death or degradation of vital action.

There is a perceptible tendency visible within the last year, to go back to a chemical hypothesis to explain the etiology of epidemics. Spores and germs are not so popular as they were. Even the specific organisms of particular diseases are not on hand always when they ought to be, to support the theory of their *raisôn d'être*. Last spring Dr. R. ALBRECHT announced, in the St. Petersburg *Med. Wochenschrift*, that after long search in two cases of relapsing fever he could only find three examples of spirochæta obermeieri in the blood. After the preparation had been left for six hours the number of these bac-

teria had increased, several being visible under the microscope in each field, and all moving actively. During the remissions the blood was examined daily, no organisms being at first visible; after the preparation had been left for some days in a moist chamber, however, they suddenly showed themselves at a somewhat later period than would correspond to the patient's exacerbations, and they appeared to develop somewhat more slowly in the preparation than in the living blood. Dr. ALBRECHT noticed that the spirochæta did not disappear after the death of the patient, for he found them in large numbers in the corpse, though they were motionless.

It is worth noting, that Dr. JACOBI, in his recent monograph on diphtheria, substantially renounces the theory of infectious germs, and takes his position among the believers in a chemical contagium.

NOTES AND COMMENTS.

The Relation of Sexual to Cerebral Activity.

Some sound remarks on this point occur in an article of Dr. Skene's, in the *Annals of the Anatomical and Surgical Society of Brooklyn*. He says: The effect of imperfect sexual organs upon the brain and nervous system is perhaps greater than upon the nutritive system. The sexual appetence exerts a marked influence upon the development of the brain and nervous system, and also upon their functions, by exciting the exercise of the intellectual faculties and the emotions in a variety of ways. Many of the manifestations of the mind are but responses to extrinsic impressions and physical wants. During early life—the "receptive age," as Dugald Stewart called it—the brain is called into action by surrounding objects and whatever there is outside of itself that can affect it; therefore mental development depends largely upon the impressions made upon it. By withholding the influence of the sexual organs, a modified mental condition is the sure consequence, and that modification is toward a lower organization. The facts obtained by clinical observation support this doctrine. Among the insane I have found a number of young patients in whom the sexual organs were imperfect and inactive, and the brain was correspondingly defective. They were normal as children, but they remained childish. The arrest of brain development apparently took place at puberty, and deranged function in the form of insanity followed soon after.

Explosive Pharmaceutical Combinations.

The *Bulletin de Therapeutique*, Oct. 1880, gives several combinations in pharmacy which are liable to explode, and as patients complain so often that they are liable to be "busted" by doctors' bills, we quote these dangerous compounds lest they more literally be "busted" by doctors' pills.

1. Hypophosphite of lime, chlorate of potash, and lactate of iron, when mixed in the dry state, explode violently.

2. A solution of four parts of chromic acid in eight of glycerine also explode.

3. Chlorate of potash, mixed with a dentifrice, in the form of a dry powder, and used with a dry brush, will give rise to explosions even in the mouth.

4. Pills composed of permanganate of potash and extract of yarrow, or of the same salt with reduced iron, or of sulphureted antimony and chlorate of soda, are apt to deflagrate during or after preparation.

It follows from these facts that glycerine, and, in general, all such reducing agents, should never be combined with oxidizing agents, such as chromic acid, the chlorates, permanganates, and certain organic acids.

Quinine for Hypodermic Use.

It is stated in the *Practitioner*, Nov., 1880, that for hypodermic use Prof. Köbner considers that the hydrochlorate of quinine is best suited, not only on account of its greater solubility, but because it contains a larger proportion of the base than does sulphate of quinine, while the solubility of the preparation is greater in pure glycerine than in water. Thus, Prof. Köbner has obtained as good results in cases of intermittent neuralgia and other affections for which quinine is usually prescribed, from the injection of 0.12–0.15 gram. of quin. muriat, as are ordinarily obtained from the administration by the mouth of much larger doses (0.6–1.25), while the patients did not complain of any constitutional or gastric symptoms. The author gives the following as his formula for four injections:—

℞. Quiniæ. hydrochlor., 0.5–1.0
Glycerinæ.,
Aq. destill., āā 2.0.
Disp: sine acido.

Who First Investigated Neurasthenia.

As he who deserves it should carry the palm, according to the Latin proverb, we give the benefit of our circulation to the following statement of the editor of the *Alienist and Neurologist*, in his October issue:—

To an American superintendent and physician of a hospital for the insane is due the credit of having first, in this country, clearly pointed out and differentiated neurasthenia from other diseases. The name of that physician is Dr. E. H. Van Deusen, of Kalamazoo, Michigan. In a supplement to the biennial report of the Michigan Asylum for the Insane, for 1867–8, under the caption of "Observations on a Form of Nervous Exhaustion (Neurasthenia) Culminating in Insanity," he wrote as follows: "Our observations have led us to think that there is a disorder of the nervous system, the essential character of which is well expressed by the term given above, and so uniform in development and progress that it may, with propriety, be regarded as a distinct form of disease." In this instance, as in many others, the medical superintendents of the hospitals for the insane, in this country, have anticipated the profession outside of them in important contributions to clinical medicine.

Hot Water for Sweaty Feet.

In an article in the Ohio *Med. Recorder*, Dec., 1880, Dr. Pooley says:—

Dr. Gay, of Columbus, informs me that when he was at the Hot Springs, in Arkansas, he saw there what was called the "corn hole," being one of the hot wells for which the region is celebrated, in which numerous persons were in the habit of soaking their feet for many hours every day, until their corns were thoroughly macerated, and could easily be pulled out by the roots. He was told that it also cured sweaty feet, which he found, on inquiry, to be the fact, and since his return home he has cured this affection in many instances, by simply directing the feet to be soaked, for hours every day, in water as hot as can be borne.

The Metric System in Machine Shops.

In the November number of the *Journal of the Franklin Institute* is a strong article by Mr. Coleman Sellers, showing why the metric system should *not* be introduced into American machine shops. His arguments are conclusive, and we recommend them to the perusal of the metric fanatics. They apply in a great degree to dispensing pharmacy, as well as to the manufacture of machines. His comments on the conflict of meteorological systems are acute, and sufficiently indicate the difficulties which stand in the way of any harmonious action.

There is no doubt but that the more closely the metric system is scanned and tested by practical men, the less does its introduction recommend itself. Shall it not be dropped altogether?

Wickersheimer's Fluid.

As we have been requested, several times, to repeat the formula of this preserving fluid, we do so here, the more readily, as the original formula has been gradually somewhat altered, so as to facilitate its manufacture, and to make it better applicable for various purposes. Messrs. Poetz and Flohr, of Berlin, prepare two kinds, one intended for injections, the other for macerating and immersing bodies, etc. Their composition is as follows:—

	For Injecting.	For Immersing.
℞. Arsenious acid,	16 grams.	12 grams.
Sodium chloride,	80 "	60 "
Potassium sulphate,	200 "	150 "
" nitrate,	25 "	18 "
" carbonate,	20 "	15 "
Water,	10 litres.	10 litres.
Glycerin,	4 "	4 "
Wood-naphtha,	¾ "	¾ "

Means of Treating Inflamed Hemorrhoids.

The treatment used by M. Chéron, *Revue Medico-Chirurgic.*, to combat congested and engorged states of the uterus, is based on the exosmotic properties of glycerine, and consists in the use of vaginal suppositories of this substance, rendered solid by the addition of a small quantity of white glycerine. M. MacAuliffe, in the *Journal de Med. et Chir. Pratiques*, having often obtained good results from this method of treatment, had the idea to use the same application in inflamed hemorrhoids. He prescribed suppositories containing:—

℞.	Glycerin,	3 parts
	Gelatine,	1 part
	Ext. bellad. vel opii,	gr. ss.

The gelatine is melted in the glycerine, and suppositories are obtained of sufficient consistence for introduction into the anus. The result of this medication surpassed his expectations; a notable amelioration was observed after the first application, and three generally sufficed to dissipate the inflammation.

The suppository should be as deeply introduced as possible; in about an hour after the patient experiences a desire to evacuate the

bowels, and the first stool is liquid; this results from the affinity of glycerine for water, and this exosmotic action being exercised through the mucous membrane covering the hemorrhoidal tumors, produces their depletion.

Revulsive Applications in Tuberculosis.

Prof. Peter, in *l'Union Médicale*, makes the following recommendations:—

If the patient is still robust, cups or even leeches may be applied on the thorax, over the points where there exist signs of pulmonary congestion. If the patient is already enfeebled, it will be better to have recourse to dry cupping, sinapisms, and to flying blisters. Applications of croton oil, of thapsia, of plasters containing tartar emetic and Burgundy pitch, should be absolutely rejected, as they leave indelible marks. If the lesions are more advanced, an issue may be established by means of Vienna paste in the second or third intercostal space, about an inch from the sternum. If the patient should object to a permanent issue in one place, a second might be established just before the cicatrization of the first, and thus a revulsive effect be continuously obtained. Finally, the surface of the thorax, under the clavicles, may be lightly touched in twenty or more points, with the actual cautery, every five days.

The Elastic Ligature in Surgery.

Dr. Charles Simon has studied (*These de Paris*, No. 562, 1879), under the direction of Prof. Duplay, the elastic ligature and the advantages to be obtained from its use in surgical therapeutics. He considers its mode of action in anal fistula and in phimosis; he shows that by ligation with elastic substances the ablation of tumors of the tongue may be brought about, this method having been in practice by MM. Delens and Duplay. In inversion of the uterus also, this means may be brought into requisition, as also in spina bifida and mammary tumors. The conclusions arrived at by the author of the thesis, are: 1. The elastic ligature exposes less than any other process to the ordinary complications of operations (erysipelas, abscess, hemorrhage). 2. The elastic ligature is especially indicated in anal fistula, tumors of the tongue, uterine inversion, and for ligation of the umbilical cord, when enlarged and gelatinous (Budin). 3. The other uses to which the elastic ligature has been put cannot, as yet, be definitely judged.

The Spontaneous Cure of Phthisis.

Prof. Bennett, of Edinburgh, used to teach that a large percentage of phthisical cases recovered with ordinary care; Prof. Flint has advocated a similar view; Prof. DaCosta, we believe, thinks only two or three per cent. thus recover. Dr. Heitter, of Vienna, in the *Medizinische Jahrbücher*, 1880, recently gave the results of his investigation on this head into 16,562 post-mortem examinations. Of these, excluding cases where only adhesions or cicatricial retractions were found, there were 780 where centres of obsolete tubercle were found in the lungs, death having resulted, not from tubercle, but from some other disease. Of these 780 cases, 503 were males, 277 females, the numbers being tolerably equally divided between the ages of twenty and seventy-five, two cases having reached respectively 101 and 103 years! The individuals belonged almost exclusively to the working classes. The lung affection appeared mostly as black pigmented cicatricial tissue enclosed by gray-yellowish nodules, or cavities of size between a hazel-nut and a hen's egg, with more or less fluid contents. In 651 cases the disease was double, and in almost all it was confined to the apex. A spontaneous cure, he believes, takes place far more commonly in chronic than in acute tuberculosis; and so long as the tuberculosis has not extended beyond the upper lobe, a complete recovery is possible. If it has extended beyond the upper lobe, while cessation of the process for a longer or shorter time may take place, complete recovery is impossible.

Can Syphilis be Spread by Vaccination with Human Virus?

This subject has been vigorously discussed in various medical societies lately. For example, at the last session of the Rhode Island State Medical Society, last month, Dr. T. W. Perry read a paper on syphilis, with numerous clinical illustrations from his own practice. The discussion following this paper led to another subject, viz., the possibility of communicating contagious diseases by vaccination. The speakers were unanimous in the opinion that vaccine virus produces nothing but a vaccine pustule, and transmits no infectious disease. Care must be taken, however, to obtain pure lymph, on the eighth day, and to avoid its contamination with blood or cutaneous secretions. In point of fact, such care is never exercised, and it is next to impossible that it should be; hence the freedom from danger of syphilitic contamination is theoretical only.

The Treatment of Orchitis and Epididymitis.

The London *Medical Record* states that Prof. Wertheim recommends, in cases of moderate severity, besides rest in the horizontal position and support of the scrotum on a pillow placed between the thighs, the application of freshly spread mercurial plaster, which is to be changed every night and morning. If the swelling be very great, and the scrotum shining, and if great pain be present, ice-cold poultices are indicated. In case of abscess, the author makes a single incision, and does not use drainage-tubes, but syringes out the cavity twice a day with carbolic or other suitable lotion. When suppuration is too profuse, a lotion of sulphate of copper is to be used. The emplastrum hydrargyri may be applied at the same time, an opening being made in the plaster to correspond with that of the abscess.

Hint for the Use of the Actual Cautery.

Dr. John M. White, of Alabama, forwards us the following note, which will be of considerable value :—

In using the actual cautery, anoint the tissues around the place to be cauterized with liquid storax, and it will prevent them from being burned. In cauterizing the os always anoint the vagina with liquid storax and the vagina will not be burned.

Correspondence.

Congenital Hydrocephalocele or Craniomeningocele.

Ed. Med. and Surg. Reporter :—

December 3d, 1880, during the first heavy rain of the season, I was sent for to visit a babe eight miles northwest of this city. The messenger, not having seen the child, could only say that it had a large tumor on the back of its head. I arrived at the house during the early part of the afternoon, and learned from the midwife, who appeared to be an intelligent woman, that she had delivered Mrs. K., aged twenty-eight years, of her seventh child, about seven P.M., of the previous day. It having been a foot presentation she noticed nothing unusual until the head was expelled, which was not more than two hours from the time the mother felt her first pain, but "the waters having broke the evening before" she was on hand, expecting the confinement. The babe, a boy, weighed about eight pounds and was well developed, excepting the head. In size the latter was in proportion to the body, but the forehead began to retreat immediately above the eyebrows; the fontanelles were less than usual, but the bones were not united. Passing over to the occipital region I found a tumor resembling that of a bifid spine. At first I regarded it as an enormous craniomeningocele (Gross), but upon closer inspection I found that the upper portion of the sack contained a solid or semi-solid substance, and that it protruded from a fissure in the centre of the occipital bone, forming an irregular circle about one and a quarter inches in diameter, which changed my diagnosis to that of hydrocephalocele. By careful manipulation I was able to return the solid contents, with a portion of the liquid, into the cavity of the skull, which in reality reduced the tumor to a craniomeningocele. Up to this time the child had been in a stupid or semi-comatose condition, only crying when disturbed, and swallowing when milk or water was put into its mouth. These, with its labored breathing, were the only evidences of life. But now the eyes opened and the milk was taken with a relish. The lower portion of the tumor being deficient in true skin, a portion of the liquid had escaped through a rupture in the sack, during its passage through the maternal pelvis, and disintegration of tissue having set in at this point, I determined upon an immediate removal of the pendulous portion of the scalp and membranes. Placing the child upon a table suitably prepared, and otherwise being ready, my only assistant, the midwife, raised the tumor (in the condition before described) and I ligated it close to the head, then severed it about three-quarters of an inch from the ligature.

Knowing the almost certain fatal results of ligating the envelopes of the brain, I carefully and closely sutured the scalp and removed the ligature. No serum escaping I applied a light compress and instituted carbolized water dressing.

The sack was essentially composed of the scalp and the membranes of the brain, and contained three ounces of bloody serum. The tumor, as removed, weighed ten ounces, and in circumference, measured eleven by eleven inches.

When I left the house, two hours later, the child appeared to be in as good a condition as could be expected, but it survived the operation less than two days, dying, as I am told, in a convulsion.

Remarks.—The literature upon the subject of hydrocephalocele is very meagre, and Dr. Gross, the author of the term craniomeningocele, says but little about it in his work on surgery. As I found the case it was a hydrocephalocele, the tumor being composed of the scalp, the membranes of the brain, cephalo-spinal fluid and a portion of the brain; but after returning the latter within the skull, the remaining tumor became a craniomeningocele, and as such, I believe it to be the largest on record. The blood mixed with the serum in the sac came from the severed vessels of the scalp.

The final result corresponds with all the cases recorded; but believing the tumor, while in utero, to have been one of craniomeningocele, I think had it been so detected, the accouchement conducted accordingly, and operation followed as above described, that a more favorable ending might have ensued.

In the removal of the ligature, I am aware that there was danger of hemorrhage from the meningeal vessels, but not more so than in Jobert de Lamballe's favorable case in trephining and opening the meninges in exploring the brain.

Santa Barbara, Cal. A. B. Stuart, M.D.

Medical Confessions.

ED. MED. AND SURG. REPORTER.

In the REPORTER of December 11th, No. 24, we find an article entitled "An Excusable Mistake."

I feel much indebted to the author for his frankness of spirit—yes, a generous spirit; an open-hearted frankness—and the idea very naturally causes some of us to review some of our own mistakes, and say, "He that is without sin among you, let him first cast a stone."

In the more verdant days of my practice I, no doubt, would have said, why did not the doctor do thus, or otherwise, and know the difference between hemorrhage from a tooth and hæmoptysis? This would be but an expression of selfish human nature, which is far more ready to censure than to approve. But at this period I can say I do not know exactly what I should do, until placed in that particular position; as the spectator of a game may see points which the player does not, on account of his mind being loaded with other consequences. How we all love our successes and hate our failures! Hate them, even to the extent of trying to rid our minds of them, as being too unpleasant to think of. Yet, is he not wise and great who can look upon adversity and prosperity with equal candor and firmness? Are not some of the mistakes we make our very secrets of success?

Answering this in my own case, I can give a positive yes. Though my medical life has not been made up of mistakes, they have been sufficiently numerous to be plainly seen. As I entered practice, armed with graduation, I soon found that much of the good teaching of my professors had been very wrongly comprehended by me. After administering to a child a carefully proportioned dose of aconite, and finding that it was only by timely interference and the use of the proper antidotes that the child was saved from the effects of an overdose; after seeing like effects from doses of different drugs, given with the greatest mathematical accuracy; after seeing that I have used the obstetric forceps in cases where time and lard should, by all means, have been the remedies; and after meeting the disappointments in the administration of remedies, and finding the failure due to my own laziness and lack of care; I can truly say that these professional errors are among the greatest secrets of my success to-day.

Greatest? Yes, certainly, greatest! The adage "easy come, easy go," is not always true. A mistake in practice may come easy but it cannot go easy. It leaves a lasting picture and impression upon the mind. It will be a guiding star in times of darkness. Let who will censure us for relating to each other our professional mistakes. Open confessions are good for the soul, and certainly they will result in good to the general practitioner and likewise to his patients. Let us hear from others. J. F.

[We applaud the above as the expression of what all honest practitioners feel. The man who says that he never makes mistakes is a man not to be trusted. He either aims at deceiving others, or his gross ignorance deceives himself. What the writer says about the instructive character of mistakes is also most true. The thoughtful man learns more from them than from his successes. The latter may be only lucky hits; but of the former there is, alas! but one interpretation. Why may not the general profession, also, learn more from its failures than successes? So it could, were such properly reported. As we said last week, this journal maks a special bid for *unsuccessful* cases, for *failures*, for *errors*, for blunders, if you will. While every respect will be paid to the confidential characters of such statements, they will be utilized for the good of all.—ED. REPORTER.]

Sclerema—Result of Autopsy, Microscopic Examination, Etc.

ED. MED. AND SURG. REPORTER:—

Sensational newsmongers gave the credulous public a surfeit of matter pertaining to this case during life, but it is our privilege to call the attention of the medical profession to actual facts gleaned from the friends of the deceased, and conclusions based upon the results of the autopsy.

The child was a son of Mr. and Mrs. Jacob H. Kinsely, of New Philadelphia, O. The child at birth was healthy and of normal size. The first appearance of disease was observed at two years of age, when the child had an attack of porrigo favosa, which readily yielded to appropriate treatment. A short time subsequent to this the scleremic condition first became apparent, commencing in the palms of the hands and soles of the feet, and extended from thence over the entire body. The palms of the hands, to the touch, resembled sole leather, and by the ignorant were supposed to be petrifying or turning to stone, and he soon was known under the soubriquet of "The Petrified Living Child."

When disease had extended over the entire body, there was general induration of the entire surface, it being very cold and of a glassy appearance. The knee, elbow, and second phalangeal joints became perfectly anchylosed, with contraction of limbs. The occipito frontalis muscle became fixed to the skull, and the orbicularis palpebrarum became immovable—compelling the child to sleep with its eyes open. The child took nourishment ordinarily well, its digestion seemingly good, and suffered but little apparent pain.

On Monday, Dec. 6, 1880, the child contracted a cold; on Friday grew worse, when a physician was called, and it died the Saturday following, at 5 o'clock, P.M., aged 3 years, 1 month and 2 days. The remains were placed in a vault, and on Tuesday following an autopsy was conducted, under the supervision of the following medical persons: Drs. J. T. McCane, J. Hill, G. H. Peck, T. J. Richards, —— Tinker, and Mrs. Dr. Anna Richards, of New Philadelphia, O., and Dr. J. T. Goucher, of North Lawrence, O.

The conclusion of the post-mortem revealed congestion of the lungs as the immediate cause

of death. Sclerema, or hardening of the skin and the loose connective subcutaneous tissue was general and extensive. Beneath the skin was found a dense layer of white-yellow fibrous tissue, 1½ inches in thickness, closely compact, and very dense in structure.

A microscopic examination of a portion of tissue removed from the left forearm by Professor J. N. Miner, of Medical Department of Wooster University, revealed the following:—

Hypertrophy of fatty tissue, subcutaneous fatty tissue. The layers of epithelium on the surface not above half as thick again as natural. The epithelium not the specific seat of disease. The fatty tissue consisting of closely packed cells, large and closely packed together in meshes of connective tissue, which seems to have crowded the papillæ out of existence.

The sclerema in this case was doubtless owing to a scrofulous diathesis existing in the child. The treatment was as varied as the number of medical men who were called to see the case. For the greater part, hot baths, friction, and electricity were the remedies relied upon.

J. T. Goucher, M.D.

North Lawrence, Ohio.

Unchangeable Character of Diabetic Urine.

Ed. Med. and Surg. Reporter:—

In your Medical and Surgical Reporter of Dec. 18, 1880, page 538, is a short article about diabetic urine remaining unchanged for several months.

During the latter part of last winter I had a case of diabetic urine which proved fatal. During his sickness I made many examinations of it for sugar; a day or two before his death I saved some in a 4 oz. vial, which I took to my office, and after giving it several tests for sugar, I set it away in an out of the way place out of doors, where it was exposed to the hot sun for some weeks. One day a person came to my office who suspected one of his family was afflicted with the disease, and the subject of the tests was freely explained. Thinking of this bottle and that perhaps I could show the test, I went and got it, and was very much surprised to find it so well preserved. There was no odor, but little sediment, and the test for sugar showed as well as the day it was procured.

In this case there had been no salicylic acid given, but he had been a very intemperate man for some years.

If the above is worthy of a place in your journal, you are welcome to it.

West Troy, N. Y. R. H. Sabin, M.D.

A Wonderful Surgeon.

Ed. Med. and Surg. Reporter:—

The following paragraph caught my eye lately, in a medical journal.—

An East Indian Surgeon, Ram Sundar Gose, is said to have performed lithotomy five hundred times, inaugurated charitable dispensaries in wild and remote districts, organized four hospitals, besides vaccinating one hundred and sixty-three thousand in two years.

It does not appear clearly whether the words "in two years" apply to the whole of his work, or to the vaccination only; but taking the latter supposition, a little calculation will show that the gentleman must have averaged five hours a day, vaccinating a little over forty four patients an hour, to have accomplished this feat. The remoteness of his residence enables one to express a doubt as to the accuracy of the statement, without the risk of suggesting a "vaccination match." If true, it certainly seems as if Mr. Ram Sundar Gose might claim the lofty position of champion vaccinator of the world.

Philadelphia, Dec. 10th, 1880. P.

News and Miscellany.

The Premiums Continued.

The premiums which we offered to old subscribers who, along with their own renewals, will send us the subscription price of a new subscriber, will, at the request of several correspondents, be continued until February 28th. These premiums are specified on page 523 of last volume (Dec. 11th, 1880), and need not be repeated here.

We avail ourselves of this opportunity to thank our numerous friends who have exerted themselves in our behalf, and have sent us already such agreeable additions to our lists.

New Plan of Gauging Physicians.

Some time ago we referred to a scheme called "The Physicians' Protective Register Company," started in this city (Reporter, Nov. 13th, p. 440). A writer in the *Daily Times*, December 31st., sends a letter to that journal, which we quote in full, for the benefit of the profession in this and other cities where such schemes are set on foot:—

"Your article in to day's *Times*, on 'Medical Wheat and Cockle,' as presented by the 'Physicians' Protective Register Company,' is apt to mislead the public as to the truth in the case. From my official position in the Philadelphia County Medical Society, I know that the matter is neither indorsed nor countenanced by the Society nor its prominent members. In common with many members of the County Society, who are also members of the State and American Medical Associations, I was neither called on nor did I answer the notice referred to, simply because the whole affair is an advertising scheme in the interest of its publishers. From a canvasser I learned that those gentlemen who declined to pay the three-dollar fee would have their names omitted, and upon suggesting that trouble might arise under such circumstances, he remarked that the "name" might go in, but the column of "place of graduation" and "date" would in such instances be left blank, thus directly classing educated gentlemen of long standing with quacks and imposters. Furthermore, the public care little about the matter, having confidence in their family physician, and respectable members of the profession take no interest in advertising dodges of any kind."

Removal of a Ring.

A correspondent in Middletown, New York, sends us the following:—

"I had a call about 4 o'clock one morning, from a stranger, who informed me that he had been traveling about all night after help, which he had thus far failed to obtain. He showed me a thick gold finger-ring on his penis. I was startled into an expression of curious surprise, which he did not satisfy, but requested me to remove it. On examination I found the ring was close to the pubis, and the organ outside excessively elongated and enlarged. The ring embraced the root like a string around the neck of a bag. I sent for a jeweler, and after ten minutes' work he sawed through the circlet, and we drew it apart with two pairs of tooth forceps. The patient quietly paid his bill, pocketed the ring, and took a dignified departure. I have heard of him since in good health."

Case of Hæmophilia.

The Chicago papers are interested in a case of hæmophilia. An account in the *Daily News* runs:—

"Willie Crawford, aged seventeen years, son of Willie Crawford, captain of a tugboat, has for seven years been sweating blood at times, and lately had severe attacks, which alarmed his parents. His infirmity comes on him usually after taking cold. Great black patches appear on his body, from which blood drops the size of a pin head exude. Blood flows from his mouth, nose, eyes, stomach, and even from the bladder and kidneys. No pain accompanies these discharges, but they make his blood thick and weaken him. Sudden fright or excitement will temporarily check the flow. He is mentally bright, and his father, mother, brother and sisters are strong and healthy."

Such cases are not extremely rare in the history of medicine.

Medical Matters in Spain.

A foreign exchange tells us that in each quarter of Madrid there is, by law established, a house where four to six beds are always held in readiness to receive any persons suffering from accidents or sudden illness, and whom it would be difficult to transport either to the hospital or to their homes. At each of these depots there are two or three doctors, according to the importance of the district, two nurses, a clerk, and two stretcher-bearers. Both day and night a medical man remains on duty at this post, and he has with him the necessary surgical instruments, bandages, medicaments, etc. This institution is in vogue in all the large towns of Spain. The medical attendants receive fair remuneration, and are appointed by public competition. These appointments supply practice to young doctors, and enable them to tide over the earlier and more difficult period of their careers. For a village of forty poor families and one hundred and thirty cottages and houses, the local authorities pay the medical man a yearly salary of $115, and the well-to do inhabitants contribute $385.

The Pennsylvania State Lunatic Asylum.

Many of his professional brethren will regret to learn that Dr. John Curwen has been removed from the position of Superintendent of the State Insane Asylum, at Harrisburg. The principal cause was his alleged and unwarranted assumption of authority, and his extravagance in the management of affairs. Dr. Curwen has held the position of Superintendent of the Harrisburg Hospital for the Insane nearly thirty years, and is widely known throughout the State, this being the oldest institution of the kind in Pennsylvania. His third term of ten years would expire early in January. His successor, Dr. J. C. Gerhart, has been first assistant of the hospital for eleven years, and is eminently qualified for the position by education and experience. He studied medicine with Dr. Atlee, of Lancaster, and has made the subject of insane hospitals a special study in this country and in Europe.

Personal.

—Dr. C. F. Ehrenfield, State Librarian, is lying seriously ill with pleurisy, at Harrisburg.

—Dr. A. A. McDonald has been elected physician-in-chief of the Department of the Insane of the Philadelphia Almshouse.

—Dr. J. A. Thacker, of Cincinnati, who is devoted to microscopy, received a pleasant Christmas gift, in the shape of an announcement of his election to the Royal Microscopical Society, of London. This honor was the more grateful that it was unsought and unexpected.

OBITUARY NOTICE.

—Dr. David P. Smith, professor in the Yale Medical School, and one of the best known physicians and surgeons in the Connecticut valley, died in Springfield, December 26th, in his fiftieth year.

QUERIES AND REPLIES.

Reprints and Short Monographs.

Dr. Oliver and others ask how they can obtain the reprints and short monographs noticed under "Notes on Current Literature." We reply that, as a rule, we give the authors' addresses, and that they should be written to personally for them. We, ourselves, usually receive but a single copy, which is filed.

Dr. L. G. A., of Ky.—You should address the Surgeon General U. S. A., Washington, D. C., to obtain the information you wish.

Dr. L. K, of Va.—The expression "sideration of the heart" has been used by some French writers to denote an abnormal cardiac action, which is the opposite of palpitation; in other words, a sudden stopping of the beat for a few seconds.

Scrutator desires any facts which seem to point to the development of cancer from constitutional or hereditary syphilis. If sent to the editor of this journal, they will be either published or forwarded.

MARRIAGE.

PETTINGILL—ALLISON.—On Wednesday evening, Dec. 22d, at the residence of the bride's parents, by the Rev. F. E. Bessey, Ed. L. Pettingill, M.D., and Ida Leonor, youngest daughter of Wm. H. Allison. All of Hancock, N. Y.